

## **Natural History Inventory 2000 Grizzly Ridge Wildland Park**




Prepared by:

**Cliff Wallis, P. Biol and Cleve Wershler, P. Biol.  
Cottonwood Consultants Ltd.  
Calgary, AB**

for:

**Natural Resources Service  
Alberta Environment  
Valleyview, Alberta**

**March 2001**



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## 1. INTRODUCTION

Cottonwood Consultants Ltd. of Calgary was contracted by Natural Resources Service of Alberta Environment to undertake a Natural History Inventory at Grizzly Ridge Wildland Park in the Swan Hills area of north-central Alberta.

No previous comprehensive natural history studies have been carried out on fauna and flora in the area. The 2000-2001 study included a literature review, a multi-season field inventory, and aerial photograph/biophysical map interpretation (including GIS mapping). The project objectives were:

### *Ecological Unit Classification*

To conduct an ecological land classification and define ecological units at the ecosite hierarchical level (1:20 000) by integrating landform, wildlife and representative plant community type data from field plots into the maps and reports.

### *Bird and Mammal Inventory*

To produce a bird and mammal inventory of the park. Incidental observations were also be made of other wildlife.

### *Special Features Identification*

To identify and describe special features in the park and integrate them into the maps and report. For the purposes of this project, special features included landform types as classified in *Classification of Alberta Land Forms 1998*, as well as the plant communities, plant species, and vertebrate and invertebrate species of concern as identified by the Alberta Natural Heritage Information Center (ANHIC). Also included were highly productive habitats that may be characterized by high populations or high species diversity.

### *Sensitive Areas and Disturbed Areas*

To identify and describe sensitive areas and disturbed areas in the park, and integrate these areas into the maps and report.

### *GIS Mapping*

To provide GIS ARC/INFO files and 1:20,000 hardcopy maps of the ecological land classification, special features, sensitive areas and disturbed areas.

### *Project Report*

To provide a report describing the ecological characteristics and special features of the area.

The final products consist of:

- a report in Word 97 format that contains:
  - descriptions of major vegetation assemblages and specific community types and associated faunal assemblages;
  - descriptions of significant geological, soil, vegetation, hydrological or faunal features, including plant communities as well as plant and animal species of special concern (e.g. rare, endangered, red-listed);

- annotated plant and animal species lists; with particular emphasis on rare species descriptions;
- digital files consisting of ARC/INFO.E00 polygons for the various ecological units and polygons or points for each of the special features
- completed forms (site description, vegetation, ANHIC) and interpreted aerial photography
- 35 mm prints and negatives of field plots and project area
- a representative sample of plants and wildlife from our stock nature photo library
- paper copies of maps, including one original and two copies
- digital files of vegetation plots (in Access 2 PLOTS format) which include the information from the relevant site description and vegetation forms
- digital files of wildlife observation (in Access 97 WILDOBS format)
- digital files of special features in a format compatible with ANHIC's database
- conversions of digital files to file formats required by the client (i.e. ASCII file in a form that is compatible with Ecological Site Information System or direct entry into ESIS)
- digital files consisting of attribute files for each polygon

Digital information including word processing files is be on CD.

Cliff Wallis was the overall project coordinator and biophysical specialist responsible for the landscape and vegetation components. Cleve Wershler was the wildlife specialist responsible for the faunal component.



## 2. STUDY AREA BACKGROUND

The study area included all of Grizzly Ridge Wildland Park lying on the north side of Sturgeon Lake in Tp. 70 - 72, Rge. 6 - 8, W5 Meridian. It is an area of 107 sq. km located southwest of the town of Slave Lake (Figure 1.)

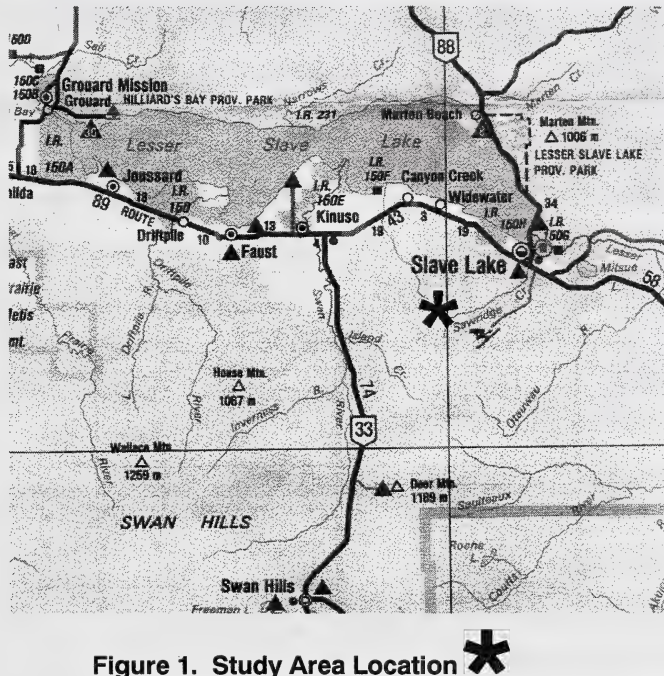


Figure 1. Study Area Location \*

**History:** The park was designated as a wildland park in 1998. This was initiated through the Special Places process.

Grizzly Tower, on Sawridge Hill on one of the northern plateaux, is one of the oldest forest lookout tower locations in Alberta. A replica of the original tower was recently built.

**Climate:** The area lies in the Boreal Southern Cordilleran climatic region (Ecoregions Working Group 1989). This is a transitional zone between the climates of the Boreal Forests and the Rocky Mountains. It is a continental climate, characterized by short warm summers and long cold winters. Precipitation is moderately high during all seasons but there can be years of very high precipitation as well as extended periods of drought. Snow cover generally lasts about five months beginning in November and ending in April. Winds prevail from the west or northwest. Chinooks are common in winter. The presence of the Swan Hills and the higher elevation than surrounding lands increases the precipitation relative to adjacent lowlands, resulting in some of the highest summer precipitation in Alberta (Achuff and Wallis 1992).

**Topography, Bedrock and Surficial Geology:** The park lies on the Swan Hills Upland. It includes a combination of a discontinuous plateaux with a thin veneer of glacial deposits and heavily dissected, and sometimes slumping, colluvial slopes.

The highest plateau areas are in the extreme south (over 1100 m) but elevations of all plateaux are fairly uniform with northern plateaux, e.g. Sawridge Hill, reaching over 1050 m. The lowest elevations are found along stream valleys and the extreme northern lower slopes that lie at about 770 m above sea level.

Bedrock from the Cretaceous age underlies the park. This Wapiti Formation is a soft brown sandstone.

The most striking geological features are the surficial pre-glacial gravel deposits of Paleocene that underlie the plateaux.

An overview of geology in the region is provided by Wynnyk et al. (1963).

**Soils:** Soils are mainly Gray Luvisols, with the exception of Gleysols in wet non-boggy areas in the valleys and Organic soils in wet boggy areas on the plateaux. Regosols are widespread and occur along the slopes and the plateaux where cobbles are at the surface. An overview of soils in the region is provided by Wynnyk et al. (1963).

**Hydrology:** Drainage is into several small streams that ultimately flow into Lesser Slave Lake. The principal hydrological features are:

- small unnamed lake in southeastern portion
- small ponds at the extreme south and in the east central portion in a slump block in a recent burn
- small open bogs on the plateau
- Sawridge Creek draining the eastern flank
- Adams Creek and Island creek draining the western flank
- Assineau River and Mooney Creek draining the northern flank

All these streams lie in deeply incised valleys. They have minor floodplains and judging from debris along the banks can carry large volumes of water at certain times of year. All streams area easily crossible at most other times.

**Vegetation and Wildlife:** The vegetation (Map 1) and wildlife are typical of forests in the Upper (54 sq. km) and Lower Foothills (53 km) Natural Region in Alberta. Most of the site represents the ridge/valley wall level 1 Natural History Theme although there are some minor areas of Wetland-Organic on the plateaux and Floor/Stream in the valley bottoms. The preglacial gravel capping of the plateaux is a unique feature (Achuff and Wallis 1992)

Fire is the dominant natural disturbance which has created the variety of age classes and forest types found in the park.

White birch, subalpine fir, black spruce, white spruce, lodgepole pine are the dominant trees occurring extensively as mixedwood stands. Aspen is scattered throughout and is occasionally dominant, especially at lower elevations. Balsam poplar is largely confined to streamsides and



moister sites on the slopes where it rarely forms pure stands. Wetlands and bogs are rare. A few rare plant locations and one new rare plant community have been identified as part of this study.

There is a low diversity of bird and mammal life compared with surrounding areas. Nevertheless, there is a distinctive assemblage of birds and mammals typical of outliers of the Upper and Lower Foothills. There are several species of wood warblers, including one blue-listed species, as well as a variety of large mammals.

The area has been defined as environmentally significant in two studies (Recreation and Protected Areas Division 1996; Bentz et al. 1995). The area represents some of the most minimally disturbed land in the Upper Foothills Subregion.

### 3. STUDY APPROACH

#### Phase I - Information Review

A variety of available information and biophysical data (e.g. soils, vegetation, geology; aerial photographs) was gathered. The principal original information sources were:

1. the biophysical information contained in the reports, maps, databases, files and collections of Alberta Environment (Alberta Vegetation Inventory data) and the Alberta Research Council (soils and geological data)
2. the database of the Alberta Natural Heritage Information Centre (for current information on tracking list species' and communities' status); and
3. recent aerial photographs.

#### Phase II - Field Survey

Natural history information from existing data sources was plotted manually to paper copies of aerial photographs. Aerial photography interpretation was used in conjunction with existing data sources and field surveys to further refine the description of the Alberta Vegetation inventory polygons. The field surveys provided a more complete view of the dominant tree species within the predefined polygons. On-the-ground observations were made in a representative sample of north, south and central sections of the park, including a recent large burn.

Field surveys were conducted during four critical periods: spring (early flowering plants, amphibians and breeding birds); summer and early fall (later flowering plants, vegetation description, bird migration and small mammal surveys); and winter (mammal tracking). In addition to the specific survey types, other observations of selected species were noted and entered into a database. These notes were focused on species not easily censused in survey plots/transects or that have not been found in plot/transect work, e.g. non-singing birds or early callers like woodpeckers and grouse.

Plots were established and GPS located so that a representative group could be used for future monitoring programs, regardless of the type of survey (e.g. bird, small mammal, pellet, vegetation). These survey methods are based on standardized techniques used in recent ecological land classification studies by the Canadian Parks Service and other researchers.

Where weather conditions allowed, color 35mm photographs were taken in vegetation survey plots (and labelled appropriately after processing). Plot locations were recorded by UTM from GPS information using NAD27 map datum requested by the client and were also noted on laminated color xeroxed copies of aerial photographs. Color photographs were also taken of other project area features, particularly significant Level 3 Natural History Themes. Plant species and plant communities noted in ANHIC tracking lists and animal species listed by COSEWIC in any category or Alberta Natural Resources Service in the "blue" and "red" categories were searched for.

#### Spring

The spring breeding bird surveys had a target of 6 breeding bird survey circles (standard 100 m radius) wholly within each of the Level 2 Natural History Theme assemblages identified. Some



Level 2 Natural History Themes had more intensive work done where the theme is particularly extensive, while less common themes were constrained by the amount of habitat available or a restricted distribution. The forty-four breeding bird survey plots done included:

- one in open bog (CR1) -- limited by lack of open bogs in study area
- six in black spruce (CR6, CA8, CR11, CR20, CR31), including burn, dry and wet types
- twenty-four in coniferous and coniferous dominated mixed woods (CA1, CA5, CA7, CA9, CA10, CA11, CA12, CR2, CR4, CR5, CR7, CR8, CR10, CR18, CR19, CR22, CR23, CR24, CR25, CR26, CR28, CR29, CR30) in every combination of plateau, slope, pure coniferous subalpine fir, lodgepole pine or black spruce dominated and coniferous-deciduous mixedwood combinations of subalpine fir, white spruce, black spruce, lodgepole pine, aspen, birch and poplar
- one in pine (CR3) -- limited by burn in extensive pine and lack of availability of pure pine in northern and central portions
- one in deciduous-dominated mixed woods (CR5) and two in deciduous woods (CR15 and CR16) -- see also meadow complex following
- nine in meadow complex (CA2, CA3, CA4, CR9, CR12, CR13, CR14, CR17, CR21) which included sampling of the tall shrubbery/open meadows as well as the deciduous and deciduous dominated mixedwoods intertwined in the meadows.

The breeding bird surveys consisted of 10 minute counts in which all birds and other wildlife species were recorded along with notes on behavior. Surveys were undertaken from dawn until mid to late morning, depending on level of song and weather conditions.

Sampling for breeding birds and other species was also done in numerous other sites representative of the area (e.g. ponds, riparian areas along creeks, old growth stands) selected during literature and aerial photograph interpretation.

While amphibians were finished breeding by the time the surveys began, spring and summer surveys focused on finding adults to provide some information on amphibian use of the limited aquatic habitats in the study area. Wetlands/shores were surveyed for amphibians using a visual encounter method whereby an ecological unit was traversed in a pattern designed to sample the highest potential amphibian habitat.

Random observations of various plant and animal species were noted and entered into a database.

### Summer and Early Fall

Summer and early fall surveys were targeted towards mammal surveys and vegetation description. There was a target of six vegetation plots in each of the Level 2 Natural History Theme assemblages identified. Information was noted on field survey forms that are based on standard site, vegetation and soil description forms available from Alberta Environment. Information was gathered in 20 m X 20 m plots in forest and 10 m X 10 m plots in shrub and herbaceous communities). Within each plot, canopy cover for each vascular and non-vascular plant species was estimated within the various vegetation layers (tree, tall shrub, low shrub, herb-dwarf shrub and bryoid). Cover estimates were taken for litter and mineral soil. Average tree canopy height and dbh were also estimated. Physical factors such as slope, aspect,

topographic position, landform, soils and drainage were noted. The following vegetation plots in the Level 2 Natural History Themes were done:

- twenty-four in coniferous and coniferous dominated mixed woods (V10, V11, V12, V14, V17, V18, V19, V37, V38, V39, V40, V41, V42, V43, V44, V45, V46, V47, V48) in every combination of plateau, slope, pure coniferous subalpine fir, lodgepole pine or black spruce dominated and coniferous-deciduous mixedwood combinations of subalpine fir, white spruce, black spruce, lodgepole pine, aspen, birch and poplar
- nine in deciduous and deciduous-dominated mixed woods (V8, V15, V16, V20, V23, V32, V34, V35, V50) and two in deciduous woods
- five in pine (V2, V3, V9, V51, V52) -- limited by burn in extensive pine and lack of availability of pure pine in northern and central portions
- five in black spruce (V7, V13, V24, V25, V28), including dry and wet types
- four in open bog (V4, V5, V6, V26) -- limited by lack of open bogs in study area
- four in minor wetlands meadow types (V1, V27, V33, V36)
- six in meadow complex (V21, V22, V29, V30, V31, V49) which included sampling of the tall shrubbery/open meadows

Random observations of various plant and animal species were noted and entered into a database.

Special status (e.g. tracked, endangered, blue and red-listed) plants and animals were searched for based on our previous field experience, a knowledge of their habitat requirements and the availability and accessibility of those habitats in the study area.

The summer and early fall surveys included bird migration and mammal (trapping, browse and pellet surveys) work. The bird migration work was collected as incidental observations during vegetation and mammal surveys. Small mammals were surveyed using a limited snap-trapping technique that minimizes the impact on local populations while providing data on species' presence and habitat use. The goal was 20-40 trap-nights in each Level 2 theme. The following small mammal surveys were done:

Deciduous Birch/Aspen and Deciduous Mixedwood (M3, M4) - 40 trap nights

Conifer-Black Spruce (M2, M5, M10) - 50 trap nights

Open Bog (M6, M7) - 30 trap nights

Coniferous Mixedwood (M1, M11) - 40 trap nights

Meadow Complex (M8, M9) - 36 trap nights

As a supplement to the winter surveys, browse and pellet counts were undertaken along transects within one representative sample of each of the major Level 2 Natural History Theme to characterize use by ungulates and hares. Browse plots were run along a 100 m transect with sampling every 5 m in 2.5 m diameter plots. Pellet groups were counted along 100 m X 2 m transects. The purpose of the browse and pellet counts was to compare relative use for these species. The following surveys were done:

Deciduous Birch/Aspen and Deciduous Mixedwood (B6, B8)

Conifer-Black Spruce (B7)

Open Bog (B3, B4, B5)

Meadow Complex (B10)



Coniferous Mixed Woods (B6A)  
Pine (B1, B2)

### Winter

Winter surveys were focused on mammal tracking (squirrel, mustelids and other carnivores, hare and ungulates) but incidental bird observations were also recorded. A target of 2 km-days was set for each of the Level 2 Natural History themes. A km-day is 1 km of 2 metre wide transect for 1 day since the last significant snowfall. The same 1 km that has had 5 days since the last significant snowfall would count as 5 km days. This provided information on species' presence and relative abundance according to the Level 2 Natural History themes. The following surveys were done:

Coniferous-Black Spruce (W1) - 3.6 km days  
Coniferous Mixed Woods (W2, W4, W5, W7, W8) - 9.1 km days  
Deciduous/Aspen Birch and Meadow Complex (W3A, W3B, W6) - 14 km days

No pine surveys were done due to inaccessibility of the southern part of the study area and the relatively small unburned pine units in the study area.

### **Final Report**

Wildlife observation and vegetation data was entered into Access databases (wildobs and plots respectively). The plot, transect and key random observation localities are shown on Map 3. As part of the final report, various analyses were made of vegetation and wildlife data to define plant and animal communities that are characteristic of the area and a variety of special features (Map 2). The ecological units represented by vegetation types and the plateau boundary are shown on Map 1.

An analysis of the digital data was also done to develop slope sensitivity maps (Map 4). This analysis was according to guidelines developed in British Columbia (Anonymous 1995). Slopes are broken into three classes based on slope (0-6% = low; 7-9% = moderate and >10% = high).

The final report includes:

- a report and associated Word 97 word processing file that summarizes the ecological work conducted in the study area (current and historical) according to the subject headings in the Terms of Reference and which includes one set of original prints mounted and captioned, suitable for laser color copying
- digital files for polygons and point features (ArcView project)
- digital files consisting of Excel 97 .xls attribute files for each polygon or point feature
- mylar and 2 sets of all 1:10,000 scale maps

#### 4. NATURAL HISTORY THEME UNIT DESCRIPTIONS

All polygons representing mappable units are shown on Map 1. Vegetation.

##### 4.1 Valley/Ridge: Deciduous Birch/Aspen and Deciduous Mixedwood





#### 4.1.1 Vegetation

Deciduous birch is a moderately widespread vegetation type occurring primarily on slopes, especially at lower elevations. Aspen is a less frequent component but is locally dominant primarily at lower elevations, although there occasional small stands within coniferous-dominated mixedwood on the plateau. Balsam poplar is restricted to moister sites, especially along floodplains and seepages.

These are the most common woodlands that interfinger in the Wetland Complex vegetation.

These woodlands are typically very open with a lush herbaceous cover. Birch and aspen woods are characterized by a low trunk density and with a wide variety of canopy coverages ranging from fairly closed to very open. Heights are in the 10 to 20 m range. These woods are typified by Gray Luvisols.

The dominant tree species are *Populus tremuloides* Michx. (quaking aspen) and *Betula neoalaskana* Sarg. (Alaska paper birch).

There is very sparse to moderate regeneration in the understory. *Picea glauca* (Moench) Voss (white spruce), *Abies lasiocarpa* (Hook.) Nutt. (subalpine fir) and *Betula neoalaskana* Sarg. (Alaska paper birch) are the most common species regenerating in the understorey but *Populus balsamifera* (balsam poplar) and *Pinus contorta* Dougl. ex Loud. (lodgepole pine) are sometimes present as regeneration.

With the exception of *Alnus tenuifolia* Nutt. (= *Alnus incana* ssp. *tenuifolia*, speckled alder) and *Alnus crispa* (Ait.) Pursh (= *Alnus viridis* ssp. *crispa*, American green alder) in some stands, most cover values of taller shrubs tend to be low.

Tall shrubs present at low cover values include: *Salix discolor* Muhl. (pussy willow), *Amelanchier alnifolia* (Nutt.) Nutt. ex M. Roemer (Saskatoon serviceberry), *Oplopanax horridus* Miq. (devilsclub), *Prunus pensylvanica* L. f. (pin cherry) and *Sorbus scopulina* Greene (Greene mountainash).

Low shrubs are also found at low cover values. *Rosa acicularis* Lindl. (prickly rose), *Rubus idaeus* L. (American red raspberry), *Viburnum edule* (Michx.) Raf. (mooseberry viburnum) or *Vaccinium myrtilloides* Michx. (velvetleaf huckleberry) frequently occur and may be dominant in the low shrub layer. Other low shrubs that make up a small part of the cover include: *Ribes hirtellum* Michx. (hairystem gooseberry), *Ribes lacustre* (Pers.) Poir. (prickly currant), *Rubus parviflorus* Nutt. (thimbleberry) and *Vaccinium membranaceum* Dougl. ex Torr. (blue huckleberry).

The principal dominant herbs are: *Aralia nudicaulis* L. (wild sarsaparilla) and *Calamagrostis canadensis* (Michx.) Beauv. (bluejoint).

Other important or frequent herbs of deciduous-birch/aspen woods include:

*Actaea rubra* (Ait.) Willd. (red baneberry)  
*Aster ciliolatus* Lindl. (Lindley's aster)  
*Athyrium filix-femina* (L.) Roth (common ladyfern)  
*Cornus canadensis* L. (bunchberry dogwood)

*Epilobium angustifolium* L. (fireweed)  
*Galium boreale* L. (northern bedstraw)  
*Gymnocarpium dryopteris* (L.) Newman (western oakfern)  
*Hieracium umbellatum* L. (narrowleaf hawkweed)  
*Lathyrus ochroleucus* Hook. (cream peavine)  
*Linnaea borealis* L. (twinflower)  
*Maianthemum canadense* Desf. (Canada beadruby)  
*Mertensia paniculata* (Ait.) G. Don (tall bluebells)  
*Petasites palmatus* (Ait.) Gray (= *Petasites frigidus* var. *palmatus*, Arctic sweet coltsfoot)  
*Rubus pubescens* Raf. (dwarf red blackberry)  
*Thalictrum venulosum* Trel. (veiny meadowrue)

Other herbs observed in aspen woods include:

*Achillea millefolium* L. (common yarrow)  
*Arnica cordifolia* Hook. (heartleaf arnica)  
*Aster conspicuus* Lindl. (showy aster)  
*Aster puniceus* L. (purplestem aster)  
*Delphinium glaucum* S. Wats. (Sierra larkspur)  
*Disporum trachycarpum* (S. Wats.) Benth. & Hook. f. (roughfruit fairybells)  
*Dryopteris expansa* (K. Presl) F J & K (= *Dryopteris assimilis* S. Walker (spreading woodfern)  
*Dryopteris carthusiana* (Vill.) H.P. Fuchs (spinulose woodfern)  
*Epilobium glandulosum* Lehm. (= *Epilobium ciliatum* ssp. *glandulosum*, marsh willowherb)  
*Equisetum sylvaticum* L. (woodland horsetail)  
*Galium triflorum* Michx. (fragrant bedstraw)  
*Gentiana amarella* L. auct. p.p. (= *Gentianella amarella* ssp. *acuta*, marsh felwort)  
*Geranium richardsonii* Fisch. & Trautv. (Richardson's geranium)  
*Heracleum maximum* Bartr. (= *Heracleum lanatum* Michx. (common cowparship)  
*Lonicera involucrata* Banks ex Spreng. (twinberry honeysuckle)  
*Lycopodium annotinum* L. (stiff clubmoss)  
*Lycopodium complanatum* L. (groundcedar)  
*Lycopodium obscurum* L. (rare clubmoss)  
*Melampyrum lineare* Desr. (narrowleaf cowwheat)  
*Mitella nuda* L. (naked miterwort)  
*Phegopteris connectilis* (Michx.) Watt (long beechfern)  
*Pyrola elliptica* Nutt. (waxflower shinleaf)  
*Rubus pedatus* Sm. (strawberryleaf raspberry)  
*Smilacina racemosa* (L.) Desf. (= *Smilacina racemosa* (L.) Desf. (feathery false Solomon's seal)  
*Streptopus amplexifolius* (L.) DC. (claspleaf twistedstalk)  
*Tiarella trifoliata* L. (threeleaf foamflower)  
*Trientalis borealis* Raf. (American starflower)  
*Urtica dioica* L. (stinging nettle)  
*Vicia americana* Muhl. ex Willd. (American vetch)  
*Viola palustris* L. (marsh violet)

*Pleurozium schreberi* (Schreber's big red stem moss) and *Hylocomium splendens* (splendid feather moss) are the dominant non-vascular plants but generally they do not form much of the cover. *Ptilium crista-castrensis* (Hedw.) De Not. (knights plume moss) also occurs on moister, more closed sites.



Lichens on tree bark are:

*Bryoria Brodo & D. Hawksw.* (horsehair lichen)  
*Caloplaca Th. Fr.* (orange lichen)  
*Cetraria Ach.* (cetraria lichen)  
*Cetraria pinastri (Scop.) Gray* (= *Vulpicida pinastri*)  
*Evernia mesomorpha Nyl.* (ring lichen)  
*Hypogymnia physodes (L.) Nyl.* (tube lichen)  
*Parmelia sulcata Taylor* (shield lichen)  
*Physcia (Schreber) Michaux* (rosette lichen)  
*Usnea Dill. ex Adans.* (beard lichen)

#### 4.1.2 Wildlife

A total of 19 animal species have been recorded in deciduous birch/aspen. This type includes habitats (aspen and balsam poplar woods) that are very restricted in the study area. These habitats and the associated species are more prevalent at lower elevations in the region. Although the species diversity is not high, 4 bird species occur that are restricted to this habitat type in the study area

The majority of species are of relatively infrequent occurrence in this habitat, which is partly a reflection of the limited representation of this habitat in the study area. Ungulate use appeared to be relatively sparse. Wildlife species restricted to deciduous birch/aspen include the following:

Hairy Woodpecker (perched wetland balsam poplar)  
Red-eyed Vireo (aspen)  
Yellow Warbler (aspen-birch-meadow)  
Connecticut Warbler (aspen)

Additional wildlife species observed in deciduous birch/aspen, but also occurring in other habitats, include the following:

Yellow-bellied Sapsucker  
Warbling Vireo  
Black-capped Chickadee  
Boreal Chickadee  
Yellow-rumped Warbler  
American Redstart  
Mourning Warbler  
Common Yellowthroat  
Chipping Sparrow  
White-throated Sparrow  
Evening Grosbeak  
Rose-breasted Grosbeak  
Red Squirrel  
Deer Mouse  
Moose

#### 4.2 Valley/Ridge: Conifer-Black Spruce





## 4.2.1 Vegetation

Black spruce bogs and forest occur throughout the park on the plateaux. Overall plant diversity in these habitats is low although several species occur nowhere else. Black spruce bogs are typified by Organic soils.

The dominant species is *Picea mariana* (P. Mill.) B.S.P. (black spruce) with mostly very closed canopy covers and moderate tree height. *Abies lasiocarpa* (Hook.) Nutt. (subalpine fir), *Betula neoalaskana* Sarg. (Alaska paper birch) and *Pinus contorta* Dougl. ex Loud. (lodgepole pine) are sometimes present in low cover values and seldom reach covers of 10%. There is some regeneration of *Picea mariana* (P. Mill.) B.S.P. (black spruce) and *Betula papyrifera* (paper birch).

*Picea mariana* (P. Mill.) B.S.P. (black spruce) and *Abies lasiocarpa* (Hook.) Nutt. (subalpine fir) are the most common species regenerating in the understorey but *Pinus contorta* Dougl. ex Loud. (lodgepole pine) and *Betula neoalaskana* Sarg. (Alaska paper birch) are less frequent.

Tall shrubs are present with low cover values:

*Salix discolor* Muhl. (pussy willow)  
*Sorbus scopulina* Greene (Greene mountainash)

*Ledum groenlandicum* Oeder (bog Labrador tea) and *Vaccinium myrtilloides* Michx. (velvetleaf huckleberry) are the dominant low shrubs. *Vaccinium vitis-idaea* L. (lingonberry) is a frequent dwarf shrub.

Other low and dwarf shrubs typically occur at low cover values (<10%) but may be locally dominant in wetter sites:

*Andromeda polifolia* L. (bog rosemary)  
*Chamaedaphne calyculata* (L.) Moench (leatherleaf)  
*Vaccinium membranaceum* Dougl. ex Torr. (blue huckleberry)  
*Viburnum edule* (Michx.) Raf. (mooseberry viburnum)

Important herbs of black spruce include *Rubus chamaemorus* L. (cloudberry) and *Rubus pedatus* Sm. (strawberry leaf raspberry). *Gaultheria hispidula* (L.) Muhl. ex Bigelow (creeping snowberry), *Carex deweyana* Schwein. (Dewey sedge), *Cornus canadensis* L. (bunchberry dogwood), *Carex pauciflora* Lightf. (star sedge), and *Maianthemum trifolium* (L.) Sloboda (= *Smilacina trifolia* (L.) Desf., threeleaf false Solomon's seal) are locally important. Most other herbs are typically present at low cover values. Other herbs found in black spruce include:

*Aster ciliolatus* Lindl. (Lindley's aster)  
*Athyrium filix-femina* (L.) Roth (common ladyfern)  
*Beckmannia syzigachne* (Steud.) Fern. (American sloughgrass)  
*Carex magellanica* ssp. *magellanica* Lam. (= *Carex paupercula* Mx., little sedge)  
*Dryopteris expansa* (K. Presl) F J & K (= *Dryopteris assimilis* S. Walker (spreading woodfern)  
*Equisetum sylvaticum* L. (woodland horsetail)  
*Eriophorum vaginatum* L. (tussock cottongrass)  
*Fragaria virginiana* Duchesne (Virginia strawberry)  
*Linnaea borealis* L. (twinflower)

*Lycopodium annotinum* L. (stiff clubmoss)  
*Moneses uniflora* (L.) Gray (single delight)  
*Rubus pubescens* Raf. (dwarf red blackberry)  
*Streptopus amplexifolius* (L.) DC. (claspleaf twistedstalk)  
*Trientalis borealis* Raf. (American starflower)

The ground cover is composed largely of non-vascular plants. The most abundant are the various *Sphagnum* spp. (sphagnum), *Pleurozium schreberi* (Brid.) Mitt. (Schreber's big red stem moss), and *Ptilium crista-castrensis* (Hedw.) De Not. (knights plume moss). *Polytrichum commune* Hedw. (polytrichum moss) and *Hylocomium splendens* (Hedw.) Schimp. in B.S.G. (splendid feather moss) are locally dominant.

Other non-vascular species include:

*Aulacomnium palustre* (Hedw.) Schwaegr. (aulacomnium moss)  
*Cladina rangiferina* (L.) Nyl. (greygreen reindeer lichen)  
*Cladonia* sp. P. Browne (cup lichen)  
*Dicranum fuscescens* Turn. (dicranum moss)  
*Dicranum undulatum* Brid. (undulate dicranum moss)  
*Icmadophila ericetorum* (L.) Zahlbr. (peppermint drop lichen)  
*Peltigera aphthosa* (L.) Willd. (felt lichen)

Lichens on tree bark include:

*Bryoria Brodo & D. Hawksw.* (horsehair lichen)  
*Cetraria* sp. Ach. (cetraria lichen)  
*Evernia mesomorpha* Nyl. (ring lichen)  
*Hypogymnia physodes* (L.) Nyl. (tube lichen)  
*Usnea* sp. Dill. ex Adans. (beard lichen)

#### 4.2.2 Wildlife

Wildlife species diversity is relatively low in conifer-black spruce. A total of 23 animal species have been observed, all of which occur in other parts of the study area. During this survey, local concentrations of deer, elk and moose were recorded in this habitat. Characteristic, frequently occurring, wildlife of conifer-black spruce include the following species:

Spruce Grouse (dry)  
Gray Jay (dry and bog)  
Yellow-rumped Warbler (dry and bog)  
Chipping Sparrow (dry and bog)  
Dark-eyed Junco (dry, bog and burn)  
Pine Siskin (dry, bog and burn)  
Red Squirrel (dry and bog)  
Snowshoe Hare (dry)  
Moose (dry, bog and burn)

Other species observed less frequently in conifer-black spruce include the following:

Three-toed Woodpecker (dry and burn)



Olive-sided Flycatcher (dry - post-breeding)  
Common Raven (dry, bog and burn)  
Boreal Chickadee (dry and bog)  
Red-breasted Nuthatch (bog and burn)  
Golden-crowned Kinglet (bog - post-breeding)  
Ruby-crowned Kinglet (dry)  
American Robin (burn)  
Blackpoll Warbler (migrant)  
Southern Red-backed Vole (dry)  
Coyote (dry)  
Marten (dry)  
Wapiti (dry)  
Deer sp. (dry)

#### 4.3 Valley/Ridge: Coniferous and Coniferous Mixedwood



##### 4.3.1 Vegetation

Mixed coniferous and coniferous-dominated woodlands are the most widespread of the forest types. They are characterized by a low to moderate trunk density and a closed to open canopy coverage. Heights are in the 15 to 20 m range. Mixed woods are typified by Gray Luvisols. There is a great variety of plant species that occur in this type and there is considerable heterogeneity in the vegetation. Plateau woodlands typically have a greater proportion of coniferous species, especially *Abies lasiocarpa* (Hook.) Nutt. (subalpine fir) and *Picea mariana* (P. Mill.) B.S.P. (black spruce).

The dominant tree species is often *Abies lasiocarpa* (Hook.) Nutt. (subalpine fir) with canopy covers in the 15-50% range. *Betula neoalaskana* Sarg. (Alaska paper birch) and *Populus tremuloides* Michx. (quaking aspen) are almost always present in lower cover values (typically 5-15%). *Picea glauca* (Moench) Voss (white spruce) and *Picea mariana* (P. Mill.) B.S.P. (black spruce) are quite variable in cover (typically 10-30%, but as high as 50%) and distribution (present in about 2/3 of stands). *Pinus contorta* Dougl. ex Loud. (lodgepole pine) occurs in less than half the stands and has cover values ranging from 1 to 50%.

While all species may be found in the regeneration, the most abundant species are *Abies lasiocarpa* (Hook.) Nutt. (subalpine fir) with cover as high as 60%. The next most common species in regeneration is *Picea mariana* (P. Mill.) B.S.P. (black spruce).

Cover values of taller shrubs tend to be low. *Sorbus scopulina* Greene (Greene mountainash) is the most frequently found. *Oplopanax horridus* Miq. (devilsclub) occasionally has cover values up to 30% but is found in very few of the stands. Other tall shrubs found in this type include:

*Alnus crispa* (Ait.) Pursh (= *Alnus viridis* ssp. *crispa*)  
*Alnus tenuifolia* Nutt. (= *Alnus incana* ssp. *tenuifolia*)  
*Amelanchier alnifolia* (Nutt.) Nutt. ex M. Roemer (Saskatoon serviceberry)  
*Oplopanax horridus* Miq. (devilsclub)  
*Prunus pensylvanica* L. f. (pin cherry)  
*Salix arbusculoides* Anderss. (littletree willow)  
*Salix bebbiana* Sarg. (Bebb willow)  
*Sambucus pubens* Michx. (red elderberry)

Low shrubs, *Ledum groenlandicum* Oeder (bog Labrador tea), *Vaccinium membranaceum* Dougl. ex Torr. (blue huckleberry) and *Vaccinium myrtilloides* Michx. (velvetleaf huckleberry), are dominant in this layer with the last being most abundant (typical cover values of 10-20%). Other low shrubs that make up a small part of the cover include:

*Ribes glandulosum* Grauer (skunk currant)  
*Ribes hirtellum* Michx. (hairystem gooseberry)  
*Ribes lacustre* (Pers.) Poir. (prickly currant)  
*Ribes triste* Pallas (red currant)  
*Rosa acicularis* Lindl. (prickly rose)  
*Rubus idaeus* L. (American red raspberry)  
*Rubus parviflorus* Nutt. (thimbleberry)  
*Symphoricarpos albus* (L.) Blake (common snowberry)  
*Viburnum edule* (Michx.) Raf. (mooseberry viburnum)

The dwarf shrub, *Vaccinium vitis-idaea* L. (lingonberry) is occasionally present in low cover values.

The principal dominant herbs with cover values of 10-30% and that are found in most plots are:

*Calamagrostis canadensis* (Michx.) Beauv. (bluejoint)  
*Cornus canadensis* L. (bunchberry dogwood)  
*Rubus pedatus* Sm. (strawberryleaf raspberry)



Other important herbs of mixed woods that have a high constancy or that locally have high cover values include:

*Dryopteris expansa* (K. Presl) F J & K (= *Dryopteris assimilis* S. Walker (spreading woodfern))  
*Epilobium angustifolium* L. (fireweed)  
*Equisetum sylvaticum* L. (woodland horsetail)  
*Gymnocarpium dryopteris* (L.) Newman (western oakfern)  
*Linnaea borealis* L. (twinline)  
*Lycopodium annotinum* L. (stiff clubmoss)  
*Maianthemum canadense* Desf. (Canada beadruby)  
*Petasites palmatus* (Ait.) Gray (= *Petasites frigidus* var. *palmatus*)  
*Streptopus amplexifolius* (L.) DC. (claspleaf twistedstalk)  
*Trientalis borealis* Raf. (American starflower)

*Aralia nudicaulis* L. (wild sarsaparilla) is locally important in slope coniferous mixedwood but occurs in very few stands.

Other herbs observed in mixed woods include:

*Achillea millefolium* L. (common yarrow)  
*Actaea rubra* (Ait.) Willd. (red baneberry)  
*Aralia nudicaulis* L. (wild sarsaparilla)  
*Arnica cordifolia* Hook. (heartleaf arnica)  
*Aster ciliolatus* Lindl. (Lindley's aster)  
*Aster conspicuus* Lindl. (showy aster)  
*Athyrium filix-femina* (L.) Roth (common ladyfern)  
*Delphinium glaucum* S. Wats. (Sierra larkspur)  
*Dryopteris carthusiana* (Vill.) H.P. Fuchs (spinulose woodfern)  
*Galium boreale* L. (northern bedstraw)  
*Galium triflorum* Michx. (fragrant bedstraw)  
*Gaultheria hispidula* (L.) Muhl. ex Bigelow (creeping snowberry)  
*Geranium richardsonii* Fisch. & Trautv. (Richardson's geranium)  
*Listera cordata* (L.) R. Br. ex Ait. f. (heartleaf twayblade)  
*Lonicera involucrata* Banks ex Spreng. (twinberry honeysuckle)  
*Heracleum maximum* Bartr. (= *Heracleum lanatum* Michx. (common cowparsnip))  
*Hieracium umbellatum* L. (narrowleaf hawkweed)  
*Lathyrus ochroleucus* Hook. (cream peavine)  
*Lycopodium complanatum* L. (groundcedar)  
*Maianthemum racemosum* (L.) Link (= *Smilacina racemosa* (L.) Desf., feathery false Solomon's seal)  
*Mertensia paniculata* (Ait.) G. Don (tall bluebells)  
*Mitella nuda* L. (naked miterwort)  
*Orthilia secunda* (L.) House (sidebells wintergreen)  
*Phegopteris connectilis* (Michx.) Watt (long beechfern)  
*Pyrola elliptica* Nutt. (waxflower shinleaf)  
*Rubus pubescens* Raf. (dwarf red blackberry)  
*Schizachne purpurascens* (Torr.) Swallen (false melic)  
*Senecio triangularis* Hook. (arrowleaf groundsel)  
*Smilacina racemosa* (L.) Desf. (= *Maianthemum racemosum* ssp. *racemosum*)

*Solidago canadensis* L. (Canada goldenrod)  
*Thalictrum venulosum* Trel. (veiny meadowrue)  
*Tiarella trifoliata* L. (threeleaf foamflower)  
*Tiarella trifoliata* var. *unifoliata* (Hook.) Kurtz (= *Tiarella trifoliata* var. *unifoliata*, oneleaf foamflower)  
*Vicia americana* Muhl. ex Willd. (American vetch)  
*Viola palustris* L. (marsh violet)

*Pleurozium schreberi* (Brid.) Mitt. (Schreber's big red stem moss) and *Ptilium crista-castrensis* (Hedw.) De Not. (knights plume moss) are the most abundant mosses with some significant cover values (10-50% and 5-20% respectively) in these woodlands. *Hylocomium splendens* (Hedw.) Schimp. in B.S.G. (splendid feather moss) is locally very important.

Other ground-dwelling non-vascular plants include:

*Cladina mitis* (Sandst.) Hustich (reindeer lichen)  
*Cladina rangiferina* (L.) Nyl. (greygreen reindeer lichen)  
*Dicranum fuscescens* Turn. (dicranum moss)  
*Dicranum undulatum* Brid. (undulate dicranum moss)  
*Flavocetraria nivalis* (L.) Karnefelt & Thell ()  
*Peltigera aphthosa* (L.) Willd. (felt lichen)  
*Polytrichum commune* Hedw. (polytrichum moss)  
*Sphagnum* L. (sphagnum)

Bark and twig lichens include:

*Bryoria Brodo & D. Hawksw.* (horsehair lichen)  
*Cetraria* sp. Ach. (cetraria lichen)  
*Cetraria pinastri* (Scop.) Gray (= *Vulpicida pinastri*)  
*Evernia mesomorpha* Nyl. (ring lichen)  
*Hypogymnia physodes* (L.) Nyl. (tube lichen)  
*Parmelia sulcata* Taylor (shield lichen)  
*Usnea* sp. Dill. ex Adans. (beard lichen)

#### 4.3.2 Wildlife

Coniferous/deciduous mixedwood contains the greatest wildlife diversity in the study area. Including burn areas, a total of 50 animal species have been observed here, including 10 species not found elsewhere in the study area. Most of these restricted species are relatively scarce in the study area. This habitat category contains important ungulate browse and overwintering areas.

Characteristic, frequently occurring, wildlife of coniferous (C)/deciduous (D) mixedwood include the following species:

Three-toed Woodpecker (burn) C  
 Gray Jay  
 Common Raven  
 Red-breasted Nuthatch C



Golden-Crowned Kinglet C  
Ruby-crowned Kinglet C  
Swainson's Thrush  
Yellow-rumped Warbler (burn)  
Chipping Sparrow (burn)  
Dark-eyed Junco C  
Pine Siskin (burn) C  
Snowshoe Hare  
Wapiti  
Deer sp. (mostly White-tailed)  
Moose (burn)

Additional species occurring less frequently in coniferous (C)/deciduous (D)-mixedwood, but not recorded elsewhere in the study area, include the following:

Red-tailed Hawk  
Black-backed Woodpecker (burn) C  
Northern Flicker (burn)  
Brown Creeper C  
Winter Wren C  
Magnolia Warbler  
Lincoln's Sparrow  
White-winged Crossbill C  
Masked Shrew  
Gray Wolf

Other species observed less frequently in coniferous/deciduous mixedwood, and not restricted to them, include:

Ruffed Grouse  
Spruce Grouse (burn) C  
Yellow-bellied Sapsucker D  
Olive-sided Flycatcher (burn) C  
Blue-headed Vireo D  
Warbling Vireo D  
Black-billed Magpie (winter)  
Black-capped Chickadee D  
Boreal Chickadee C  
American Robin (burn)  
Cedar Waxwing D  
Tennessee Warbler D  
Black-throated Green Warbler C  
Mourning Warbler D  
Canada Warbler  
White-throated Sparrow (burn) D  
Evening Grosbeak  
Rose-breasted Grosbeak D  
Red Squirrel C  
Deer Mouse

Southern Red-backed Vole  
Coyote  
Black Bear  
Marten  
Mule Deer

C - shows a preference for coniferous-dominated woods; D - shows a preference for deciduous-dominated woods

#### 4.4 Valley/Ridge: Conifer-Pine



##### 4.4.1 Vegetation

Pure pine woodlands are found mainly in the southern half of the park. They are characterized by a moderate trunk density and a closed to moderately open canopy coverage. Heights are in the 12-18 m range. The largest extent of pine in the eastern arm of the park was completely burned in the 1998 fire.

The dominant tree species is *Pinus contorta* Dougl. ex Loud. (lodgepole pine and its hybrids). Locally co-dominant species include: *Picea glauca* (Moench) Voss (white spruce) and *Abies lasiocarpa* (Hook.) Nutt. (subalpine fir). *Betula neoalaskana* Sarg. (Alaska paper birch) is found in most pine forests but only at very low cover.

*Abies lasiocarpa* (Hook.) Nutt. (subalpine fir) and *Betula neoalaskana* Sarg are the most common and abundant species in the regeneration layer.



Cover values of tall shrubs are low. The most widespread is *Sorbus scopulina* Greene (Greene mountainash) and it was found in all stands surveyed. Other tall shrubs include:

*Amelanchier alnifolia* (Nutt.) Nutt. ex M. Roemer (Saskatoon serviceberry)  
*Prunus pensylvanica* L. f. (pin cherry)  
*Sambucus pubens* Michx. (red elderberry)

*Ledum groenlandicum* Oeder (bog Labrador tea) and *Vaccinium myrtilloides* Michx. (velvetleaf huckleberry) are dominant in the low shrub layer with cover values in the 30-55% range. Other low shrubs that make up a small part of the cover include *Viburnum edule* (mooseberry viburnum) and *Shepherdia canadensis* (russet buffaloberry). *Vaccinium membranaceum* Dougl. ex Torr. (blue huckleberry) has a high constancy value but relatively low cover. Other low shrubs include:

*Betula pumila* L. (swamp birch)  
*Rosa acicularis* Lindl. (prickly rose)  
*Vaccinium cespitosum* Michx. (dwarf blueberry)  
*Viburnum edule* (Michx.) Raf. (mooseberry viburnum)

The dwarf shrub *Vaccinium vitis-idaea* L. (lingonberry) is occasionally present in significant cover values. *Vaccinium cespitosum* (dwarf blueberry) is often found at low cover values.

The principal dominant herbs are: *Cornus canadensis* L. (bunchberry dogwood), *Calamagrostis canadensis* (Michx.) Beauv. (bluejoint), and *Lycopodium annotinum* L. (stiff clubmoss).

Other important (high constancy but low cover) herbs of pine and pine-aspen woods include:

*Athyrium filix-femina* (L.) Roth (common ladyfern)  
*Epilobium angustifolium* L. (fireweed)  
*Lycopodium annotinum* L. (stiff clubmoss)  
*Rubus pedatus* Sm. (strawberry leaf raspberry)  
*Maianthemum canadense* Desf. (Canada beadruby)  
*Streptopus amplexifolius* (L.) DC. (claspleaf twistedstalk)

Other herbs observed in pine woods include:

*Aster ciliolatus* Lindl. (Lindley's aster)  
*Carex deweyana* Schwein. (Dewey sedge)  
*Cinna latifolia* (Trev. ex Goepp.) Griseb. (drooping woodreed)  
*Dryopteris expansa* (K. Presl) F J & K (= *Dryopteris assimilis* S. Walker (spreading woodfern)  
*Dryopteris carthusiana* (Vill.) H.P. Fuchs (spinulose woodfern)  
*Equisetum sylvaticum* L. (woodland horsetail)  
*Hieracium albiflorum* Hook. (white hawkweed)  
*Hieracium umbellatum* L. (narrowleaf hawkweed)  
*Linnaea borealis* L. (twinflower)  
*Lonicera involucrata* Banks ex Spreng. (twinberry honeysuckle)  
*Lycopodium complanatum* L. (groundcedar)  
*Orthilia secunda* (L.) House (sidebells wintergreen)  
*Rubus pubescens* Raf. (dwarf red blackberry)  
*Schizachne purpurascens* (Torr.) Swallen (false melic)

*Trientalis borealis* Raf. (American starflower)  
*Viola palustris* L. (marsh violet)

*Pleurozium schreberi* (Brid.) Mitt. (Schreber's big red stem moss) and *Ptilium crista-castrensis* (Hedw.) De Not. (knights plume moss) are the most abundant mosses with some significant (up to 35%) cover values in pine woodlands. Other ground-dwelling non-vascular plants in these woods include:

*Cladina mitis* (Sandst.) Hustich (reindeer lichen)  
*Cladonia P. Browne* (cup lichen)  
*Dicranum fuscescens* Turn. (dicranum moss)  
*Hylocomium splendens* (Hedw.) Schimp. in B.S.G. (splendid feather moss)  
*Polytrichum commune* Hedw. (polytrichum moss)

Lichens on tree bark include:

*Bryoria Brodo & D. Hawksw.* (horsehair lichen)  
*Cetraria Ach.* (cetraria lichen)  
*Cetraria pinastri* (Scop.) Gray (= *Vulpicida pinastri*)  
*Evernia mesomorpha* Nyl. (ring lichen)  
*Hypogymnia physodes* (L.) Nyl. (tube lichen)  
*Physcia* (Schreber) Michaux (rosette lichen)  
*Usnea Dill. ex Adans.* (beard lichen)

#### **4.4.2 Wildlife**

Wildlife species diversity is relatively low in conifer-pine, partly attributable to most of it being burned. A total of 8 animal species have been observed, all of which occur in other parts of the study area (all species were recorded in burned habitat unless otherwise noted):

Three-toed Woodpecker  
American Robin  
Chipping Sparrow  
Dark-eyed Junco  
Yellow-rumped Warbler  
Pine Siskin  
Red Squirrel (unburned pine-blueberry)  
Moose



## 4.5 Wetland-Mineral: Graminoid and Wetland-Lake



### 4.5.1 Vegetation

There are very few graminoid dominated wetlands in the park. Wetlands and open water are very scarce. There is one small lake in the southeast corner of the park.

Dominants in the graminoid wetlands varies widely from one site to the next.

Woody cover is very low. Shrubs include:

- Salix planifolia* Pursh (diamondleaf willow)
- Betula glandulosa* Michx. (bog birch)
- Ledum groenlandicum* Oeder (bog Labrador tea)
- Vaccinium myrtilloides* Michx. (velvetleaf huckleberry)
- Vaccinium vitis-idaea* L. (lingonberry)

*Calamagrostis canadensis* (bluejoint) occurs in all types, dominating in about half of the sites.

Other dominant or frequent herbaceous species of willow swamps include:

- Carex aquatilis* Wahlenb. (water sedge)
- Carex deweyana* Schwein. (Dewey sedge)
- Carex magellanica* ssp. *magellanica* Lam. (= *Carex paupercula* Mx., little sedge)
- Carex utriculata* Boott (Northwest Territory sedge)
- Juncus filiformis* L. (thread rush)

*Comarum palustre* L. (= *Potentilla palustris* (L.) Scop, purple marshlocks )  
*Scirpus microcarpus* J.& K. Presl (panicled bulrush)

Other herbs observed in willow swamps include:

*Achillea sibirica* Ledeb. (Siberian yarrow)  
*Agrostis scabra* Willd. (rough bentgrass)  
*Beckmannia syzigachne* (Steud.) Fern. (American sloughgrass)  
*Bidens cernua* L. (nodding beggartick)  
*Caltha natans* Pallas (floating marsh-marigold)  
*Carex diandra* Schrank (lesser panicled sedge)  
*Carex pauciflora* Lightf. (star sedge)  
*Cerastium nutans* Raf. (nodding chickweed)  
*Epilobium ciliatum* ssp. *glandulosum* (Lehm.) Hoch & Raven (= *Epilobium glandulosum* Lehm., glandular willowweed)  
*Eriophorum vaginatum* L. (tussock cottongrass)  
*Fragaria virginiana* Duchesne (Virginia strawberry)  
*Impatiens noli-tangere* L. (western touchmenot)  
*Ranunculus gmelinii* DC. (Gmelin's buttercup)  
*Rubus chamaemorus* L. (cloudberry)  
*Maianthemum trifolium* (L.) Sloboda . (= *Smilacina trifolia* (L.) Desf, threeleaf false Solomon's seal)

Non-vascular species are quite scarce but the following were found, sometimes with up to 50% cover.

*Campylium stellatum* (Hedw.) C. Jens. (star campylium moss)  
*Drepanocladus* (C. Mll.) G. Roth (drepanocladus moss)  
*Sphagnum* L. (sphagnum)  
*Sphagnum magellanicum* Brid. (Magellan's sphagnum)

#### 4.5.2 Wildlife

The only small lake, in a valley in the southeastern corner of the study area, was relatively unproductive for wildlife, with Mallard being the only species recorded. However, this area is potential breeding habitat for Wood Frog and foraging habitat for Moose.

Locally occurring slope perched wetlands were also relatively unproductive. However, the Solitary Sandpiper appears to be restricted to this habitat, in the study area, for breeding. In addition, perched wetland are potential habitats for breeding amphibians and foraging Moose.



## 4.6 Wetland-Organic: Open Bog



### 4.6.1 Vegetation

Black spruce bogs occur throughout the park's plateaux but very few have open untreed areas. Overall plant diversity in these open habitats is low although several species occur nowhere else. Black spruce bogs are typified by Organic soils.

The dominant species are *Picea mariana* (black spruce) and *Pinus contorta* Dougl. ex Loud. (lodgepole pine). These are usually quite stunted and there are low canopy covers. *Abies lasiocarpa* (Hook.) Nutt. (subalpine fir) and *Betula neoalaskana* Sarg. (Alaska paper birch) also occur in very small numbers

*Larix laricina* (tamarack) is sometimes present in low cover values and occasionally may reach covers of 15%. There is some regeneration of *Picea mariana* (black spruce) and *Betula papyrifera* (paper birch). The principal community type is *Picea mariana* (black spruce)/*Ledum groenlandicum* (bog Labrador tea)/*Sphagnum*.

*Ledum groenlandicum* (bog Labrador tea), *Andromeda polifolia* L. (bog rosemary) and *Chamaedaphne calyculata* (L.) Moench (leatherleaf) are the dominant low shrubs. Other low and dwarf shrubs typically occur at low cover values:

*Betula pumila* L. (swamp birch)  
*Kalmia polifolia* Wangerh. (bog laurel)  
*Vaccinium membranaceum* Dougl. ex Torr. (blue huckleberry)  
*Vaccinium myrtilloides* Michx. (velvetleaf huckleberry)

*Vaccinium vitis-idaea* L. (lingonberry)

Important herbs of black spruce bogs include *Carex pauciflora* Lightf. (star sedge) which may make up a significant percentage of the understory plants in wetter areas, *Carex aquatilis* Wahlenb. (water sedge), *Eriophorum vaginatum* (tussock cottongrass), *Rubus chamaemorus* L. (cloudberry), *Vaccinium oxycoccos* L. (small cranberry) and *Maianthemum trifolium* (= *Smilacina trifolia* L. Desf., threeleaf false Solomon's seal ). Most herbs are typically present at low cover values.

Other herbs found in black spruce bogs include:

*Vaccinium oxycoccos* L. (small cranberry)  
*Carex deweyana* Schwein. (Dewey sedge)  
*Carex limosa* L. (mud sedge)  
*Carex paupercula* Michx. (= *Carex magellanica* ssp. *magellanica*)  
*Eriophorum brachyantherum* Trautv. & C.A. Mey. (northland cottongrass)  
*Gaultheria hispidula* (L.) Muhl. ex Bigelow (creeping snowberry)

The ground cover is composed largely of non-vascular plants, especially *Sphagnum*. The most abundant is *Sphagnum fuscum* (Schimp.) Klinggr. (sphagnum). Other non-vascular species include:

*Aulacomnium palustre* (Hedw.) Swaenr. (aulacomnium moss)  
*Cladonia mitis* (Sandst.) Hustich (reindeer lichen)  
*Pleurozium schreberi* (Brid.) Mitt. (Schreber's big red stem moss)  
*Bryoria Brodia & D. Hawksw.* (horsehair lichen), on bark  
*Cetraria Ach.* (cetraria lichen), on bark  
*Evernia mesomorpha* Nyl. (ring lichen), on bark  
*Hypogymnia physodes* (L.) Nyl. (tube lichen), on bark  
*Usnea Dill. ex Adans.* (beard lichen), on bark

#### 4.6.2 Wildlife

The only wildlife species identified in open bog habitat was Great Gray Owl, recorded nowhere else in the study area. No small mammals or mammal browse were recorded. However, this habitat has potential for foraging Moose, as well as breeding and post-breeding Wood Frogs.



## 4.7 Special: – Meadow Complex



### 4.7.1 Vegetation

Meadow complexes are very diverse. They include open bluejoint meadows, park-like areas with scattered birch and alder as well as adjacent small streams. The meadow complexes occur on a variety of slopes throughout the study area.

The dominant tree species is *Betula neoalaskana* Sarg. (Alaska paper birch). However, the following species can also be found as scattered trees or as young regeneration, reflecting the surrounding woodland:

*Abies lasiocarpa* (Hook.) Nutt. (subalpine fir)  
*Picea glauca* (Moench) Voss (white spruce)  
*Picea mariana* (P. Mill.) B.S.P. (black spruce)  
*Pinus contorta* Dougl. ex Loud. (lodgepole pine)  
*Populus balsamifera* L. (balsam poplar)  
*Populus tremuloides* Michx. (quaking aspen)

*Alnus incana* ssp. *rugosa* (Du Roi) (= *Alnus tenuifolia* Nutt. (speckled alder) is the dominant tall shrub. *Sorbus scopulina* Greene (Greene mountainash) and *Sambucus pubens* Michx. (red elderberry) are occasionally important tall shrubs.

Other tall shrubs include:

*Alnus crispa* (Ait.) Pursh (= *Alnus viridis* ssp. *crispa*)

*Amelanchier alnifolia* (Nutt.) Nutt. ex M. Roemer (Saskatoon serviceberry)  
*Oplopanax horridus* Miq. (devilsclub)  
*Prunus pensylvanica* L. f. (pin cherry)  
*Salix arbusculoides* Anderss. (littletree willow)  
*Salix bebbiana* Sarg. (Bebb willow)  
*Salix discolor* Muhl. (pussy willow)  
*Salix planifolia* Pursh (diamondleaf willow)

*Rubus idaeus* L. (American red raspberry) is the most important low shrub. It has a high constancy across most plots and significant cover values (10-25%). Other species tend to be only occasionally found and with low cover values. A notable exception is *Rubus parviflorus* Nutt. (thimbleberry) which had 75% cover. Other low shrubs include:

*Ribes hirtellum* Michx. (hairystem gooseberry)  
*Rosa acicularis* Lindl. (prickly rose)  
*Vaccinium myrtilloides* Michx. (velvetleaf huckleberry)  
*Viburnum edule* (Michx.) Raf. (mooseberry viburnum)

The open meadows and the open understory in the woods are dominated by *Calamagrostis canadensis* (bluejoint) with up to 80% cover. Other important (high constancy or high cover) herbaceous species include:

*Athyrium filix-femina* (L.) Roth (common ladyfern)  
*Epilobium angustifolium* L. (fireweed)  
*Aralia nudicaulis* L. (wild sarsaparilla)  
*Equisetum sylvaticum* L. (woodland horsetail)  
*Gymnocarpium dryopteris* (L.) Newman (western oakfern)  
*Heracleum maximum* Bartr. (= *Heracleum lanatum* Michx. (common cowparsnip)  
*Urtica dioica* L. (stinging nettle)

Other herbaceous species found in these meadows include:

*Achillea millefolium* L. (common yarrow)  
*Actaea rubra* (Ait.) Willd. (red baneberry)  
*Aster ciliolatus* Lindl. (Lindley's aster)  
*Aster puniceus* L. (purplestem aster)  
*Bromus ciliatus* L. (fringed brome)  
*Carex aenea* Fern. (bronze sedge)  
*Cornus canadensis* L. (bunchberry dogwood)  
*Dryopteris expansa* (K. Presl) F J & K (= *Dryopteris assimilis* S. Walker (spreading woodfern)  
*Dryopteris carthusiana* (Vill.) H.P. Fuchs (spinulose woodfern)  
*Fragaria virginiana* Duchesne (Virginia strawberry)  
*Galium boreale* L. (northern bedstraw)  
*Geranium richardsonii* Fisch. & Trautv. (Richardson's geranium)  
*Hieracium umbellatum* L. (narrowleaf hawkweed)  
*Lathyrus ochroleucus* Hook. (cream peavine)  
*Linnaea borealis* L. (twinflower)  
*Lonicera involucrata* Banks ex Spreng. (twinberry honeysuckle)  
*Lycopodium obscurum* L. (rare clubmoss)



*Maianthemum canadense* Desf. (Canada beadruby)  
*Mertensia paniculata* (Ait.) G. Don (tall bluebells)  
*Petasites frigidus* var. *palmatus* (Ait.) Cronq. (= *Petasites palmatus* (Ait.) Gray, Arctic sweet coltsfoot)  
*Rubus pubescens* Raf. (dwarf red blackberry)  
*Solidago canadensis* L. (Canada goldenrod)  
*Thalictrum venulosum* Trel. (veiny meadowrue)  
*Trientalis borealis* Raf. (American starflower)  
*Vicia americana* Muhl. ex Willd. (American vetch)  
*Viola palustris* L. (marsh violet)

#### 4.7.2 Wildlife

A total of 39 animal species, including 8 not found elsewhere in the study area, have been recorded in meadow complex areas. These habitats are important for a diversity of breeding birds and migrating songbirds. Meadow complexes also contain key ungulate browse and overwintering habitat. Characteristic, frequently occurring, wildlife of meadow complex habitats include the following species:

Warbling Vireo  
 Tennessee Warbler  
 Yellow-rumped Warbler  
 White-throated Sparrow  
 Chipping Sparrow  
 Marten  
 Wapiti  
 Deer sp. (winter; mostly White-tailed)  
 Moose

Additional wildlife observed less frequently in meadow complex habitats, but confined to them, include the following:

Boreal Chorus Frog (springs)  
 Pileated Woodpecker (visitor)  
 Tree Swallow (only riparian)  
 Alder Flycatcher  
 Least Flycatcher (aspen)  
 Palm Warbler (migrant)  
 Meadow Jumping Mouse (reed grass meadow)  
 Canada Lynx

Other species observed less frequently in meadow complex habitats, and not confined to them, include the following:

Ruffed Grouse  
 Yellow-bellied Sapsucker  
 Blue-headed Vireo (only riparian)  
 Gray Jay  
 Common Raven

Boreal Chickadee (only riparian)  
Brown Creeper (post-breeding)  
Golden-crowned Kinglet (only riparian)  
Swainson's Thrush  
American Robin  
Cedar Waxwing  
Canada Warbler  
Black-throated Green Warbler (scattered large spruce)  
American Redstart  
Mourning Warbler  
Common Yellowthroat  
Pine Siskin  
Rose-breasted Grosbeak  
Snowshoe Hare  
Red Squirrel  
Deer Mouse  
Black Bear

#### **4.8 DISTURBED**

No vegetation or wildlife surveys were done in disturbed habitats. The only major disturbances are cutblocks in the extreme southern portion of the study area. A low density of seismic lines traverse the area.



## 5. SPECIAL FEATURES

Several areas of the park are considered "special" features. In addition to the ones listed below, the entire pre-glacial gravel capped plateau should be considered as special (see Map 2). The following criteria were used to select sites:

- productivity and diversity for breeding birds
- important large ungulate or carnivore habitat
- breeding habitat for blue-listed bird species
- tracking list plant communities or plant and animal species
- rare vegetation types (at park and provincial levels)

### 5.1 Rare Species and Communities

The following is a listing of the rare species and community features identified on Special Features Map 2.

UTM GRID	UTM EAST	UTM NORTH	SPECIES	DATUM
11U	627819	6110065	BLACK-BACKED WOODPECKER - BREEDING	NAD27
11U	630812	6120452	BLACK-THROATED GREEN WARBLER - BREEDING	NAD27
11U	625825	6120460	BLACK-THROATED GREEN WARBLER - BREEDING	NAD27
11U	625797	6120941	BLACK-THROATED GREEN WARBLER - BREEDING	NAD27
11U	621227	6115514	COBBLE SPRING-LICHEN (VARIOUS CETRARIA, CLADINA, STEROCAULON AND RHIZOCARPON SPECIES)	NAD27
11U	625927	6119427	JUNCUS FILIFORMIS - SMALL WOODLAND POOL WITH SEVERAL HUNDRED PLANTS	NAD27
11U	625823	6119667	JUNCUS FILIFORMIS - SEVERAL TEN THOUSANDS OF PLANTS IN LARGE JUNCUS FILIFORMIS DOMINATED COMMUNITY (ON TRACKING LIST)	NAD27
11U	623304	6103257	JUNCUS FILIFORMIS - SMALL POOL ALONG CUTLINE, ONE HUNDRED PLANTS	NAD27
11U	622504	6103940	JUNCUS FILIFORMIS - SMALL POOL ALONG CUTLINE, ONE HUNDRED PLANTS	NAD27
11U	622126	6104283	JUNCUS FILIFORMIS - SMALL POOL ALONG CUTLINE, SEVERAL HUNDRED PLANTS	NAD27
11U	625738	6119426	JUNCUS FILIFORMIS - 10,000 PLANTS	NAD27
11U	626579	6119769	PHEGopteris connectilis	NAD27
11U	625565	6119563	PHEGopteris connectilis - 30 PLANTS	NAD27
11U	626446	6119319	PHEGopteris connectilis - 50 PLANTS	NAD27
11U	624502	6109626	PHEGopteris connectilis - SEVERAL 100 PLANTS	NAD27
11U	625334	6116694	PHEGopteris connectilis - 450 PLANTS	NAD27
11U	625915	6119435	SPLACHNUM MOSS - ONE PATCH	NAD27



*Juncus filiformis* community



*Diverse Complex/Old Growth (far south of Grizzly Ridge Wildland Park)*



## **5.2 Diversity/Old Growth Complexes:**

Two complexes with highly diverse vegetation and some old growth forest were identified. Both lie on the western slope or adjacent plateau, one in the extreme south and the other just south of the central portion along the valley of Adams Creek. These include coniferous mixedwood, pine, wetland complex and black spruce habitats. There are some very large pine, slope wetlands, meadows and large balsam poplar in the southern site and some slope wetlands, diverse slopes and large spruce, fir and balsam poplar in the northern site.

## **5.3 Open Bog/Water**

Given their scarcity in the study area, the few scattered sizeable areas of open bog and standing water, including the small lake in the southeast are all mapped as "Special Features".

## **5.4 Meadow Complex**

A high diversity of wildlife (39 species) occur in this type, including 8 species restricted to this habitat type in the study area. Most of these restricted species are relatively scarce in the study area. It is productive habitat for mixed flocks of migrating songbirds and it provides key ungulate browse habitat and mineral licks associated with springs.

This is a very scenic type with expansive vistas available in many of the complexes.

## **6. RECOMMENDATIONS**

### **6.1 Future Research**

Early season (April-May) field work would provide more information on several wildlife species, including owls, Ruffed Grouse and Wood Frogs, whose breeding calls are best surveyed at that season.

Every protected area should design a monitoring program to monitor changes in species and habitats over time. There is no one correct way to undertake a monitoring program. The resources of the agency and the rigours of any management plans may dictate what is needed. In other regions, very few long-term monitoring sites have been established. Those that have been established are now providing invaluable information about the state of Alberta's ecosystems.

### **6.2 Monitoring**

For most types of resources, an annual monitoring plan is desirable. This does not mean that everything gets monitored every year, only that you have a certain set of activities to undertake each year. Many monitoring plans start out with a rigorous annual monitoring of each resource to set a baseline and to determine the range of natural variability. Following a three to five year period, the plan is revisited and the interval is usually lengthened to monitoring every three to five years.

Vegetation surveys are not typically done each year unless there is a management reason to do so. Resurveys every 5 to 20 years will be sufficient to monitor changes.

Wildlife ideally should be monitored every year for three years and then the program re-evaluated to determine if the interval can be lengthened. Representative plots should be surveyed for birds, browse/pellet and winter tracks. Small mammal trapping is not recommended for monitoring due to the high relative cost. Winter tracking can also be expensive unless personnel are located on site.

Access to the Wildland Park is the biggest obstacle to monitoring a variety of sites. The northern portion near Grizzly Tower provides a good cross section of most habitats except pine. It is also the area most heavily used for human activities and would be in ideal area to establish monitoring locations. Monitoring sites should be based on the ease of undertaking and generally should be located close to established trails.

### **6.3 Management**

Steps should be taken to limit off-highway vehicle use to designated routes or restrict it for management activities only. The area still has great value as it retains many wilderness characteristics.

Special features should be kept in mind when planning any developments or activities in the area.

The steep upper slopes present special challenges when planning any trail development. The thin soils and steep erodible terrain are easily damaged.



## 7. REFERENCES

The following are the principal information sources with direct relevance to the natural history of Grizzly Ridge Wildland Park.

- Achuff, P. and C. Wallis. 1992. Natural regions and natural history themes: targets for Alberta. Alberta Parks Service, Alberta Tourism, Parks and Recreation, Edmonton and Natural and Protected Areas, Alberta, Forestry, Lands and Wildlife, Edmonton.
- Alberta Environmental Protection. 1992. Phase 3 Forest Inventory Map, Management Unit G2C. Forest Service, Edmonton.
- Anonymous. 1995. Interior Watershed Assessment Procedure Guidebook (IWAP); Level 1 Analysis. British Columbia Ministry of Forests and British Columbia Ministry of Environment. Victoria, BC. 82 p.
- Bentz, J., A. Saxena and T. Normand. 1995. Environmentally significant areas inventory, Foothills Natural Region, Alberta. Geowest Environmental Consultants Ltd., Edmonton, AB.
- Ecoregions Working Group. 1989. Ecoclimatic regions of Canada. Ecological Land Classification Series 23. Canadian Committee on Ecological Land Classification, Canadian Wildlife Service, Environment Canada, Ottawa.
- Green, R. 1970. Geological map of Alberta. Research Council of Alberta, Edmonton.
- Recreation and Protected Areas Division. 1996. Selecting protected areas: the Foothills Natural Region of Alberta. Natural Resources Service, Alberta Environmental Protection, Edmonton.
- Wildlife Management Division. 1996. The status of wildlife in Alberta. Natural Resources Service, Alberta Environmental Protection, Edmonton.
- Wynnyk, A., J. Lindsay, P. Heringa and W. Odynsky. 1963. Exploratory soil survey of Alberta map sheets 83O, 83P and 73M. Preliminary Soil Survey Report 64-1. Research Council of Alberta, Edmonton.

## Appendix 1. ANNOTATED LIST OF PLANTS

### LYCOPODIACEAE (club-mosses)

- Lycopodium annotinum* L. -- stiff clubmoss      Fairly common in mixed woods and pine woods, occasional in other woodlands.
- Lycopodium clavatum* L. -- running clubmoss      Rare in mixed woodlands.
- Lycopodium complanatum* L. -- groundcedar      Fairly common in mixed woods and pine woods, rare in other woodlands.
- Lycopodium obscurum* L. -- rare clubmoss      Rare in deciduous-dominated woods

### EQUISETACEAE (horsetails)

- Equisetum arvense* L. -- field horsetail      Rare on moist sites, especially at lower elevations.
- Equisetum fluviatile* L. -- water horsetail      Very localized but sometimes abundant where found in standing water pools in slumps.
- Equisetum sylvaticum* L. -- woodland horsetail      Fairly common in moister coniferous-dominated woodlands.

### DRYOPTERIDACEAE (ferns)

- Athyrium filix-femina* (L.) Roth -- common ladyfern      Widespread, occasionally dominant in a wide variety of forest types. Most abundant in meadow complex.
- Dryopteris carthusiana* (Vill.) H.P. Fuchs -- spinulose woodfern      Scarce in a variety of woodlands, including pine and meadow complex.
- Dryopteris expansa* (K. Presl) Fraser-Jenkins & Jermy -- spreading woodfern      Occasional in a variety of woodlands, most common in coniferous mixedwood.
- Gymnocarpium dryopteris* (L.) Newman -- western oakfern      Locally dominant and widespread in all forest types except black spruce.
- Phegopteris connectilis* (Michx.) Watt -- long beechfern      Very local but numerous where found in seepage sites along the upper slopes; a tracking list species, Rank: S2.

### PINACEAE (pines)

- Abies lasiocarpa* (Hook.) Nutt. -- subalpine fir      Dominant and widespread species of upper slopes, moist sites and the plateau. Likely introgressed with *A. balsamea*.
- Picea glauca* (Moench) Voss -- white spruce      Widespread and dominant tree of mixed woods and white spruce woods. Regeneration in deciduous woods.
- Picea mariana* (P. Mill.) B.S.P. -- black spruce      Dominant tree species on the plateau found in almost pure stands as well as in mixtures with deciduous and coniferous species.
- Pinus contorta* Dougl. ex Loud. -- lodgepole pine      Dominant tree species on the plateau and adjacent slopes in the southern half of the area.

### POACEAE (grasses)

- Agrostis scabra* Willd. -- rough bentgrass      Very local in moist disturbed sites at lower elevations.
- Beckmannia syzigachne* (Steud.) Fern. -- American sloughgrass      Very local in small woodland pools on lower slopes.
- Bromus ciliatus* L. -- fringed brome      Scarce in meadow complex.

- Calamagrostis canadensis* (Michx.) Beauv.** -- bluejoint    Dominant grass in the meadow complex; common in a variety of woodlands.
- Cinna latifolia* (Trev. ex Goebb.) Griseb.** -- drooping woodreed    Scarce in moist pine woods.
- Festuca saximontana* Rydb.** -- Rocky Mountain fescue    Noted only on open slopes at base of Grizzly Tower.
- Oryzopsis asperifolia* Michx.** -- roughleaf ricegrass    Recorded in pine woods.
- Schizachne purpurascens* (Torr.) Swallen** -- false melic    Very local in drier aspen and pine woods.

#### CYPERACEAE (sedges)

- Carex aquatilis* Wahlenb.** -- water sedge    Dominant species in wet meadows and open bogs.
- Carex canescens* L.** -- silvery sedge    Occasional in open bogs and along cutlines
- Carex deweyana* Schwein.** (Dewey's sedge)    Occasionally dominant, widespread in open bog areas and other woodland pools.
- Carex diandra* Schrank** -- lesser paniced sedge.    Scarce in small woodland pools on slopes.
- Carex disperma* Dewey** -- softleaf sedge    Local in wooded wetland edges.
- Carex limosa* L.** -- mud sedge    Local in wetter open bogs.
- Carex pauciflora* Lightf.** (few-flowered sedge) -- Locally dominant in open bogs.
- Carex paupercula* Michx.** (bog sedge) -- occasional in open bogs.
- Carex utriculata* Boott** -- Northwest Territory sedge    Locally dominant in wetland complexes and wetter portions of bogs.
- Eriophorum brachyantherum* Trautv. & C.A. Mey.** -- northland cottonsedge    Scarce in bogs.
- Eriophorum vaginatum* L.** -- tussock cottongrass    Fairly common in black spruce bogs.
- Scirpus microcarpus* J. & K. Presl** -- paniced bulrush    Locally common along streams and in shallow water.

#### JUNCACEAE (rushes)

- Juncus filiformis* L.** (thread rush) - rare species; Rank S2;    Very locally dominant in natural wooded plateau pools and along cutlines.

#### LILIACEAE (lilies)

- Disporum trachycarpum* (S. Wats.) Benth. & Hook. f.** -- roughfruit fairybells    Scarce, in drier lowland aspen woods
- Maianthemum canadense* Desf.** -- Canada beadruby    Also known as wild lily of the valley. Fairly common in a variety of deciduous, mixed, and pine woodlands. Most prevalent in deciduous dominated sites.
- Maianthemum racemosum* (L.) Link** -- feathery false Solomon's seal = *Smilacina racemosa* (L.) Desf.    Occasional, sometimes growing in patches in more mature deciduous and mixed woods.
- Maianthemum trifolium* (L.) Sloboda** -- threeleaf false Solomon's seal = *Smilacina trifolia* (L.) Desf.    Dominant in open bogs.
- Streptopus amplexifolius* (L.) DC.** -- clasping-leaved twisted-stalk -- Widespread but nowhere abundant in all types of woodlands, both wet and dry, on slopes and the plateau.

#### ORCHIDACEAE (orchids)



- Corallorrhiza trifida* Chatelain** -- yellow coralroot    Scarce in mixed woods.  
***Listera cordata* (L.) R. Br. ex Ait. f.** -- heartleaf twayblade    Rare, in mossy fir and spruce woods.  
***Platanthera orbiculata* var. *orbiculata* (Pursh) Lindl.** -- large roundleaved orchid = *Habenaria orbiculata* (Pursh) Torr.    Rare in mossy mixed woods.  
***Spiranthes romanzoffiana* Cham.** -- hooded ladies' dresses    Rare, in open bogs and cutlines.

#### **SALICACEAE (willows)**

- Populus balsamifera* L.** -- balsam poplar    Dominant deciduous tree in moister depressions and on portions of some slopes. Widespread as individuals in different forest types  
***Populus tremuloides* Michx.** -- quaking aspen    A leading tree species of deciduous and mixed woodlands, not as prevalent as birch.  
***Salix arbusculoides* Anderss.** (shrubby willow) -- Occasional in wetter areas in meadow complex.  
***Salix bebbiana* Sarg.** -- Bebb willow    Occasional in the meadow complex and open woodlands  
***Salix discolor* Muhl.** -- pussy willow    Uncommon, in mature woodlands, especially deciduous dominated.  
***Salix petiolaris* Sm.** -- meadow willow    Rare along edges of slump wetlands.  
***Salix planifolia* Pursh** -- diamondleaf willow    Rare in stream/wetland complexes.

#### **BETULACEAE (birches)**

- Alnus incana* ssp. *rugosa* (Du Roi) Clausen** -- speckled alder = ***Alnus tenuifolia* Nutt.**  
 Local in more extensive willow swamps and bog edges, occasionally becoming sub-dominant.  
***Alnus viridis* var. *crispa* (Ait.) House** -- American green alder = ***Alnus crispa* (Ait.) Pursh**  
 Very local, most abundant in pine woods.  
***Betula glandulosa* Michx.** -- (bog birch)    Rare, noted only in wetland near lake at southeast.  
***Betula neoalaskana* Sargent** -- (Alaska birch)    Widespread tree species, occurring in a variety of woodlands and forming pure stands.  
***Betula pumila* L.** -- swamp birch    Very local in open bogs where they meet with stream/wetland complexes.

#### **URTICACEAE (nettles)**

- Urtica dioica* L.** -- stinging nettle    Locally abundant in meadow complexes.

#### **SANTALACEAE (sandalwoods)**

- Geocaulon lividum* (Richards.) Fern.** -- false toadflax    Scarce, in dry coniferous woodland such as pine.

#### **CARYOPHYLLACEAE (pinks)**

- Cerastium nutans* Raf.** -- nodding chickweed    Scarce, in seepages in meadow complex at lower elevations.

## **RANUNCULACEAE (crowfoots)**

- Actaea rubra* (Ait.) Willd.** -- red baneberry    Fairly common in rich deciduous and mixed woods.
- Caltha natans* Pallas ex Georgi** -- floating marshmarigold    Rare, noted in only one woodland pool at lower elevations.
- Delphinium glaucum* S. Wats.** -- Sierra larkspur    Local in rich deciduous woodland and woodland edges and meadow complexes.
- Ranunculus abortivus* L.** -- littleleaf buttercup    Occasional in damp open sites.
- Ranunculus gmelinii* DC.** -- Gmelin's buttercup    Scarce in shallow water and on mud flats.
- Ranunculus lapponicus* L.** -- Lapland buttercup    Scarce in wetter depressions in black spruce bogs.
- Thalictrum sparsiflorum* Turcz. ex Fisch. & C.A. Mey.** -- fewflower meadowrue    Rare in moist deciduous woods.
- Thalictrum venulosum* Trel.** -- veiny meadowrue    Fairly common herbaceous species of deciduous woodlands and meadow complexes.

## **FUMARIACEAE (fumitories)**

- Corydalis sempervirens* (L.) Pers.** (pink corydalis) -- scrambledeggs    Occasional, in recently burned sites.

## **BRASSICACEAE (mustards)**

- Arabis glabra* (L.) Bernh.** -- tower rockcress    Scarce in disturbed sites.
- Cardamine pensylvanica* Muhl. ex Willd.** -- Pennsylvania bittercress    Scarce in seepage areas in meadow complex on the north slopes.

## **SAXIFRAGACEAE (saxifrages)**

- Chrysosplenium iowense* Rydb.** -- Iowa golden saxifrage    Very local along small quiet wooded streams and on rotting logs and mudflats in mixed woods and willow swamps.
- Mitella nuda* L.** -- naked miterwort    Uncommon in herbaceous understories of coniferous and deciduous mixed woods.
- Tiarella trifoliata* L.** -- threeleaf foamflower    Locally common in wet woodlands, especially seeps. **var. unifoliata** also occurs in the same habitat although it is not as common.

## **GROSSULARIACEAE (currants)**

- Ribes glandulosum* Grauer** -- skunk currant    Scarce in coniferous mixedwoods.
- Ribes hirtellum* Michx.** -- wild gooseberry    Fairly common in deciduous woods; scarce elsewhere.
- Ribes lacustre* (Pers.) Poir.** -- prickly currant    Occasional in deciduous and coniferous mixedwoods.
- Ribes triste* Pallas** -- red currant    Scarce in coniferous mixedwoods.

## **ROSACEAE (roses)**

- Amelanchier alnifolia* (Nutt.) Nutt. ex M. Roemer** -- Saskatoon serviceberry    Occasional in drier coniferous mixedwood, deciduous and pine woodlands and in meadow complexes.

- Comarum palustre* L.** -- purple marshlocks = *Potentilla palustris* (L.) Scop. Occasional in willow swamps and sedge marshes along streams and lakes and slump blocks.
- Fragaria virginiana* Duchesne** -- Virginia strawberry Scarce in drier meadows.
- Geum aleppicum* Jacq.** -- yellow avens Scarce in seepages in meadow complex.
- Geum macrophyllum* Willd.** -- largeleaf avens Scarce in meadow complex.
- Geum rivale* L.** -- purple avens Scarce, in moist meadows.
- Potentilla rivalis* Nutt.** -- brook cinquefoil Scarce in disturbed areas along lower north slope.
- Prunus pensylvanica* L. f.** -- pin cherry Scarce, in aspen woodland, primarily at the southern end of the park.
- Prunus virginiana* L.** -- common chokecherry Scarce in drier coniferous mixedwood and deciduous woodlands where soil is well-drained.
- Rosa acicularis* Lindl.** -- prickly rose Important understory species in a variety of deciduous and coniferous mixedwoods.
- Rubus arcticus* L.** -- dwarf raspberry Scarce in moist black spruce woodlands and willow seepages.
- Rubus chamaemorus* L.** -- cloudberry Dominant herbaceous species of black spruce woodlands and open bogs.
- Rubus idaeus* L.** -- American red raspberry Occasional in a wide range of wooded and open habitats including aspen, mixed and birch woods, willow swamps, and mesic meadows along stream valleys.
- Rubus parviflorus* Nutt.** -- thimbleberry Occasional in a variety of open woodlands and meadow complexes at higher elevations.
- Rubus pedatus* J.E. Smith** -- dwarf bramble Dominant understory species in coniferous mixedwoods, deciduous woods and occasionally in pine.
- Rubus pubescens* Raf.** -- dwarf red blackberry Locally important herbaceous species in a variety of deciduous and coniferous mixedwoods.
- Sorbus scopulina* Greene** -- Greene mountainash Widespread in a variety of forest types but most common in coniferous mixedwoods.

#### **FABACEAE (peas)**

- Lathyrus ochroleucus* Hook.** -- cream peavine Fairly common in deciduous woods and occasional in meadow complexes and coniferous mixedwoods.
- Vicia americana* Muhl. ex Willd.** -- American vetch Scarce in deciduous woods and meadow complexes. Rare in coniferous mixedwoods.

#### **GERANIACEAE (geraniums)**

- Geranium bicknellii* Britt.** -- Bicknell's cranesbill Occasional in disturbed areas such as cutlines and the shore of Sturgeon Lake.
- Geranium richardsonii* Fisch. & Trautv.** -- wild white geranium Scarce in deciduous woods, meadow complexes and coniferous mixedwoods

#### **CALLITRICHACEAE (water starwort family)**

- Callitriche palustris* L.** -- vernal waterstarwort = *Callitriche verna* L. Uncommon in shallow water in ponds and temporary pools on cutlines.



## **EMPETRACEAE**

*Empetrum nigrum* L. -- crowberry    Scarce in open plateau coniferous woodlands.

## **BALSAMINACEAE (touch-me-not family)**

*Impatiens noli-tangere* L. -- western touchmenot    Rare at the edge of woodland pools on the lower north slopes.

## **VIOLACEAE (violets)**

*Viola palustris* L. -- marsh violet    Occasional along woodland pools and seepages on slopes.

## **ONAGRACEAE (evening-primroses)**

*Circaea alpina* L. -- small enchanter's nightshade    Rare, but sometimes locally abundant, in damp shaded mossy woods and seepages on slopes.

*Epilobium angustifolium* L. -- fireweed    Widespread species in well-drained woodlands, both deciduous and coniferous mixedwoods; also occurs in meadow complex.

*Epilobium ciliatum* ssp. *glandulosum* (Lehm.) Hoch & Raven -- glandular willowweed = *Epilobium glandulosum* Lehm.    Scarce along edges of woodland pools on north slopes.

## **ARALIACEAE (ginsengs)**

*Aralia nudicaulis* L. -- wild sarsaparilla    Dominant herbaceous species in deciduous woods; uncommon in coniferous-dominated sites and meadow complexes.

*Oplopanax horridum* (Sm.) Miq. -- devil's-club    Locally common on upper slopes in meadow complexes, deciduous woods and coniferous mixed woods.

## **APIACEAE (carrots)**

*Heracleum maximum* Bartr. -- common cowparsnip = *Heracleum lanatum* Michx.    Occasional in coniferous mixedwoods, deciduous woods and meadow complexes.

*Osmorhiza depauperata* Phil. -- bluntseed sweetroot    Found only in pure white spruce stands.

## **CORNACEAE (dogwoods)**

*Cornus canadensis* L. -- bunchberry dogwood    Dominant herbaceous understory species in coniferous mixedwoods and pine woods; occasional in other woodlands.

## **PYROLACEAE (wintergreens)**

*Moneses uniflora* (L.) Gray -- single delight    Scarce, in damp mossy coniferous woods, including black spruce plateau.

*Orthilia secunda* (L.) House -- sidebells wintergreen    Uncommon in coniferous mixedwoods and pine woods.

*Pyrola elliptica* Nutt. -- white wintergreen    Rare, though sometimes abundant, in deciduous and coniferous mixedwoods.

## **ERICACEAE (heaths)**

***Andromeda polifolia* L.** -- bog rosemary    Dominant in open bogs.

***Chamaedaphne calyculata* (L.) Moench** -- leatherleaf    Dominant in open bogs.

***Gaultheria hispidula* (L.) Bigel** -- creeping snowberry    Dominant in moist black spruce woods.

***Kalmia polifolia* Wang.** -- northern laurel    Occasional in open bogs.

***Ledum groenlandicum* Oeder** -- bog Labrador tea    dominant in open bogs and black spruce woodlands, also in coniferous mixedwoods and pine on the plateau.

***Vaccinium cespitosum* Michx.** -- dwarf blueberry    Uncommon in pine woods.

***Vaccinium membranaceum* Dougl. ex Hook.** -- tall bilberry    Important understory shrub in pine forest and coniferous mixedwoods.

***Vaccinium myrtilloides* Michx.** -- velvetleaf huckleberry    Dominant understorey shrub in pine forest and coniferous mixedwoods.

***Vaccinium oxycoccos* L.** -- small cranberry    Fairly common in open bogs.

***Vaccinium vitis-idaea* L.** -- lingonberry    Widespread but seldom abundant in coniferous-dominated woods. Occasionally dominant in pine.

## **PRIMULACEAE (primroses)**

***Trientalis borealis* Raf.** -- northern starflower    Widespread in a variety of woodlands but most prevalent in coniferous mixedwoods.

## **GENTIANACEAE (gentians)**

***Gentianella amarella* (L.) Boerner** -- autumn dwarfgentian    Scarce in meadow complexes, especially where disturbed.

## **MENYANTHACEAE**

***Menyanthes trifoliata* L.** -- buck-bean    Scarce, noted in only one open bog.

## **BORAGINACEAE (borages)**

***Mertensia paniculata* (Ait.) G. Don** -- tall bluebells    Widespread understory plant in deciduous and coniferous mixedwoods.

## **SCROPHULARIACEAE (figworts)**

***Castilleja miniata* Dougl. ex Hook.** -- scarlet Indian paintbrush    Local in open woodlands and slightly disturbed sites.

***Melampyrum lineare* Desr.** -- narrowleaf cowwheat    Occasional in pine woods.

***Pedicularis labradorica* Wirsing** -- Labrador lousewort    Scarce in open bogs.

***Rhinanthus minor* L.** -- yellow rattle    Locally common on plateau cutlines and woodland openings on well-drained sites.

## **PLANTAGINACEAE (plantains)**

***Plantago major* L.** -- common plantain    Occasional, introduced weed of disturbed sites.

## **RUBIACEAE (madders)**

- Galium boreale* L.** -- northern bedstraw Occasional in meadow complex and deciduous woodlands, rare in coniferous mixedwoods.  
***Galium triflorum* Michx.** -- fragrant bedstraw Occasional in deciduous woodlands, scarce in coniferous mixedwoods.

## **CAPRIFOLIACEAE (honeysuckles)**

- Linnaea borealis* L.** -- twinflower Dominant species in coniferous mixedwoods; occasional in other woodlands.  
***Lonicera involucrata* Banks ex Spreng.** -- twinberry honeysuckle Dominant understory shrub in deciduous woods; occasional in other forest types.  
***Sambucus racemosa* L.** -- red elderberry Occasional in pine, meadow complexes and coniferous mixedwoods.  
***Symphoricarpos albus* (L.) Blake** -- common snowberry Rare, noted only once in coniferous mixedwoods.  
***Viburnum edule* (Michx.) Raf.** -- mooseberry viburnum Dominant understory species in deciduous woodlands and coniferous mixedwoods.

## **ADOXACEAE (moschatels)**

- Adoxa moschatellina* L.** -- muskroot Rare in seepages in meadow complexes and coniferous woods.

## **ASTERACEAE (composites)**

- Achillea millefolium* L.** -- common yarrow Scarce in drier woodland and meadow complex habitats.  
***Achillea sibirica* Ledeb.** -- Siberian yarrow Occasional in disturbed seepages and streamsides.  
***Arnica cordifolia* Hook.** -- heartleaf arnica Occasional in coniferous mixedwoods and deciduous woods.  
***Aster ciliolatus* Lindl.** -- Lindley's aster Common in deciduous woodland and drier meadow habitats.  
***Aster conspicuus* Lindl.** -- showy aster Locally abundant in drier deciduous (aspen) woodlands.  
***Aster puniceus* L.** -- purplestem aster Occasional in meadow complexes in seepages.  
***Bidens cernua* L.** -- nodding beggartick Very local in seepages in meadow complexes.  
***Hieracium albiflorum* Hook.** -- white hawkweed Occasional in pine woods.  
***Hieracium umbellatum* L.** -- narrowleaf hawkweed Fairly common in coniferous mixed woods and deciduous woodlands. Also in drier areas in meadow complexes.  
***Petasites frigidus* var. *palmaris* (Ait.) Cronq.** -- Arctic sweet coltsfoot = ***Petasites palmaris* (Ait.) Gray** Important understory species in deciduous and coniferous mixedwoods.  
***Petasites sagittatus* (Banks ex Pursh) Gray** -- arrowleaf sweet coltsfoot Scarce in wet areas in meadow complexes.  
***Senecio pauciflorus* Pursh** -- few-flowered ragwort Occasional in meadow complexes.  
***Senecio triangularis* Hook.** -- brook ragwort Locally abundant in seepages and wet areas in woodlands, especially on the plateau.



***Solidago canadensis* L.** -- Canada goldenrod    Rare in meadow complexes and coniferous mixedwoods.

***Taraxacum officinale* G.H. Weber ex Wiggers** -- common dandelion    Weed of disturbed areas and meadow complexes.

## Appendix 2. ANNOTATED LIST OF BIRDS

This list includes 60 species of birds that were recorded within the Grizzly Ridge study area during the 2000-2001 wildlife survey. A total of 43 species, marked with an asterisk (\*), are known to have nested, or strongly suspected of having nested, in the study area during 2000.

Four categories have been used to indicate relative abundance. Specific rankings are based largely on frequency of observation in the breeding bird surveys. Breeding bird survey data is supplemented with random observation and sign; this is especially important for non-singing and transient species:

Common - widespread and numerous; more than 20 observations

Fairly Common - 11-20 observations

Uncommon - 6-10 observations

Scarce - very localized or rare; 1-5 observations

Categories for seasonal status include the following:

**Resident** - non-migratory in the region; possible in all seasons but not necessarily recorded during the winter in this study

**Summer Resident** - migratory, occurring only during the breeding season

**Migrant** - occurring during migration and not nesting in the study area

**Visitor** - resident in the region but not breeding in the study area

**Summer Visitor** - summer resident in the region but not breeding in the study area

For species that are summer residents as well as migrants, unless specified, abundance applies to the nesting season. Some species become more abundant during migratory periods.

**Common Loon (*Gavia immer*)** - scarce summer visitor. One flying and calling on June 26 over the southwestern portion of the study area. Possibly nests at small lakes just outside of the study area.

**Mallard (*Anas platyrhynchos*)** - scarce summer resident. Two on August 6 at an unnamed lake in the southeastern corner of the study area.

**Bald Eagle (*Haliaeetus leucocephalus*)** - migrant. One sub-adult flying over the study area on September 7.

**Sharp-shinned Hawk (*Accipiter striatus*)** - scarce migrant/summer resident; one adult observed flying through plateau coniferous-mixedwood, August 8.

**Red-tailed Hawk (*Buteo jamaicensis*)** - scarce summer visitor. One near the fire tower, June 27, soaring over slope coniferous-mixedwood.

**American Kestrel (*Falco sparverius*)** - scarce summer visitor. One flying low over the southwestern corner of the plateau, August 7.

**\*Ruffed Grouse (*Bonasa umbellus*)** - uncommon resident in slope coniferous-mixedwood and meadow complex (birch-aspen-meadow) habitats.

**\*Spruce Grouse (*Falcipennis canadensis*)** - uncommon resident in plateau coniferous-mixedwood (burn), plateau conifer-black spruce and coniferous-mixedwood on the edge of the plateau.

**Sandhill Crane (*Grus canadensis*)** - migrant. Flocks flying high over the study area in September.

**\*Solitary Sandpiper (*Tringa solitaria*)** - scarce summer resident. An apparent nesting pair giving alarm calls in wet sedge habitat at a perched wetland in the east-central portion of the study area, June 26.

**Great Gray Owl (*Strix nebulosa*)** - scarce visitor, possible resident. Recorded on the basis of a single feather found in an open bog (*Pinus-Andromeda-Chamaedaphne*), August 6.

**\*Yellow-bellied Sapsucker (*Sphyrapicus varius*)** - scarce summer resident in slope meadow complex (birch-aspen-meadow) and plateau coniferous-mixedwood (aspen-spruce).

**\*Hairy Woodpecker (*Picoides villosus*)** - scarce resident. One, August 7, giving alarm calls in slope deciduous aspen-birch (poplar dominated woods) at the edge of a large perched wetland in the southwestern portion of the study area.

**\*Black-backed Woodpecker (*Picoides arcticus*)** - scarce resident. One female in plateau coniferous-mixedwood (burn), June 26.

**\*Three-toed Woodpecker (*Picoides tridactylus*)** - fairly common resident in plateau and slope coniferous-mixedwood, plateau coniferous-mixedwood (burn), plateau conifer-pine and plateau conifer-black spruce (bog). Nests with young were found in plateau conifer-pine (burn) and plateau coniferous-mixedwood, June 26.

**\*Northern Flicker (*Colaptes auratus*)** - scarce summer resident in slope coniferous-mixedwood, slope coniferous-mixedwood (burn) and plateau coniferous-mixedwood (white spruce-aspen-birch and pine-black spruce).

**Pileated Woodpecker (*Dryocopus pileatus*)** - scarce visitor-resident in older slope and plateau woodlands. Recorded on the basis of sign (feeding cavities), most of which appeared to be quite old. The only recent sign was in slope meadow complex, January 15.

**\*Olive-sided Flycatcher (*Contopus cooperi*)** - scarce summer resident. One singing in slope mixedwood burn, June 26, and one migrant in plateau conifer-black spruce, September 6.

**\*Alder Flycatcher (*Empidonax alnorum*)** - scarce summer resident in slope meadow complex habitats.

**\*Least Flycatcher (*Empidonax minimus*)** - scarce summer resident. One singing in slope meadow complex (aspen-birch-alder-reed grass) habitat, June 26. On June 27, additional singing birds were recorded in lower slope aspen woods just outside of the study area where this species is more abundant. Within the study area, suitable habitat for this species, aspen woodland, is very restricted.

**\*Blue-headed Vireo (*Vireo solitarius*)** - scarce summer resident in the following slope habitats:



coniferous-mixedwood (white spruce-birch-pine-meadow), deciduous-mixedwood (white spruce-birch-pine-meadow) and meadow complex (riparian poplar-alder-white spruce).

**\*Warbling Vireo (*Vireo gilvus*)** - uncommon summer resident. Recorded mainly in slope meadow complex habitats, but also in slope deciduous mixedwood, slope deciduous birch-aspen and plateau coniferous-mixedwood.

**\*Red-eyed Vireo (*Vireo olivaceus*)** - scarce summer resident in slope deciduous birch-aspen (aspen) and plateau deciduous birch-aspen (small stand of aspen within coniferous-mixedwood).

**\*Gray Jay (*Perisoreus canadensis*)** - uncommon resident. Recorded in coniferous-mixedwood habitats on the plateau and slopes, as well as plateau conifer-black spruce (dry and bog) and slope meadow complex habitats.

**Black-billed Magpie (*Pica pica*)** - scarce winter visitor. One in plateau coniferous-mixedwood (next to chopper clearing), January 15.

**\*Common Raven (*Corvus corax*)** - fairly common resident. Recorded in plateau and slope coniferous-mixedwood, conifer-black spruce (dry, bog and burn) and meadow complex habitats.

**Horned Lark (*Eremophila alpestris*)** - scarce migrant-summer visitor. One in disturbed cut line habitat on the plateau, August 7-8.

**\*Tree Swallow (*Tachycineta bicolor*)** - scarce summer visitor/summer resident. One flying low in slope meadow complex (riparian poplar-alder-white spruce) habitat, June 6.

**\*Black-capped Chickadee (*Parus atricapillus*)** - scarce resident. Recorded in slope deciduous birch-aspen (aspen-birch-meadow and aspen) and slope coniferous-mixedwood during the breeding season, and plateau coniferous-mixedwood in fall and winter.

**\*Boreal Chickadee (*Poecile hudsonica*)** - uncommon resident. In the breeding season, recorded in plateau coniferous-mixedwood (white spruce-birch) and slope meadow complex (riparian poplar-alder-white spruce) in the breeding season. Post-breeding records were in plateau conifer-black spruce (dry and bog), plateau deciduous birch-aspen (aspen), and slope and plateau coniferous-mixedwood.

**\*Red-breasted Nuthatch (*Sitta canadensis*)** - fairly common resident. During the breeding season, recorded primarily in slope coniferous-mixedwood, but also in plateau coniferous-mixedwood and plateau conifer-black spruce (burn). Post-breeding, recorded also in plateau conifer-black spruce (bog).

**\*Brown Creeper (*Certhia americana*)** - scarce resident in slope and plateau coniferous-mixedwood. Post-breeding, also recorded in slope meadow complex and plateau conifer-black spruce.

**\*Winter Wren (*Troglodytes troglodytes*)** - scarce summer resident in coniferous-mixedwood-conifer, primarily on the slope.

**\*Golden-crowned Kinglet (*Regulus satrapa*)** - fairly common resident. During the breeding

season, recorded primarily in slope and plateau coniferous-mixedwood, but also in slope meadow complex. Post-breeding, also recorded in plateau conifer-black spruce (open bog edge).

**\*Ruby-crowned Kinglet (*Regulus calendula*)** - uncommon summer resident. Recorded mainly in plateau coniferous-mixedwood and plateau conifer-black spruce, but also in slope coniferous-mixedwood.

**\*Swainson's Thrush (*Catharus ustulatus*)** - fairly common summer resident. Recorded mainly in slope coniferous-mixedwood, but also in plateau coniferous-mixedwood and, rarely, in slope meadow complex (alder-scattered birch/immature spruce).

**\*American Robin (*Turdus migratorius*)** - scarce summer resident. Recorded in slope meadow complex (aspen-birch-meadow), coniferous-mixedwood (burn), plateau conifer-pine (burn) and plateau conifer-black spruce (bog).

**American Pipit (*Anthus rubescens*)** - migrant. One flying over the study area on September 6.

**\*Cedar Waxwing (*Bombycilla cedrorum*)** - scarce summer resident in plateau coniferous-mixedwood and slope meadow complex (aspen-birch-meadow) habitat.

**\*Tennessee Warbler (*Vermivora peregrina*)** - fairly common summer resident. Recorded mainly in slope meadow complex habitats, but also in plateau and slope coniferous-mixedwood.

**\*Yellow Warbler (*Dendroica petechia*)** - scarce summer resident. One singing in slope deciduous birch/aspen, June 27. Limited suitable habitat (aspen-dominated woodland) exists in the study area. More abundant at lower elevations outside of the study area.

**\*Magnolia Warbler (*Dendroica magnolia*)** - scarce summer resident. One singing in plateau coniferous-mixedwood (spruce-fir-birch) on the plateau edge.

**\*Yellow-rumped Warbler (*Dendroica coronata*)** - common summer resident and the most abundant breeding bird in the study area. Occurs primarily in plateau and slope coniferous-mixedwood, but also recorded in slope meadow complex (including riparian poplar-alder-white spruce), plateau coniferous-mixedwood (burn), plateau conifer-pine burn, and plateau conifer-black spruce. The typical subspecies of the area is the Myrtle Warbler (*Dendroica coronata coronata*); however, an individual male with a Myrtle X Audubon's (*D. c. auduboni*) hybrid plumage feature was recorded.

**\*Black-throated Green Warbler (*Dendroica virens*)** - scarce summer resident in slope coniferous-mixedwood (spruce-birch-scattered pine/fir) and slope meadow complex (birch-aspen-meadow) habitats.

**Palm Warbler (*Dendroica palmarum*)** - migrant. One in slope meadow complex (birch-reed grass) on September 7.

**Blackpoll Warbler (*Dendroica striata*)** - migrant. One in plateau conifer-black spruce on September 6.



**\*American Redstart (*Setophaga ruticilla*)** - scarce summer resident in slope meadow complex and slope deciduous birch/aspen habitats.

**\*Connecticut Warbler (*Oporornis agilis*)** - scarce summer resident. Four singing on single transect, in deciduous birch/aspen (aspen woods).

**\*Mourning Warbler (*Oporornis philadelphia*)** - uncommon summer resident. Restricted mostly to slope habitats: meadow complex, deciduous birch/aspen and coniferous-mixedwood. Scarce in plateau coniferous-mixedwood (plateau edge spruce-fir-birch).

**\*Common Yellowthroat (*Geothlypis trichas*)** - scarce summer resident in slope meadow complex and slope deciduous birch/aspen (aspen-birch-meadow) habitats.

**\*Canada Warbler (*Wilsonia canadensis*)** - scarce summer resident in slope meadow complex and plateau coniferous-mixedwood habitats.

**\*Chipping Sparrow (*Spizella passerina*)** - common summer resident. Occurs primarily in plateau and slope coniferous-mixedwood. Less frequent in slope meadow complex, slope deciduous birch/aspen, slope coniferous mixedwood, slope coniferous-mixedwood (burn), plateau conifer-pine (burn), plateau coniferous-mixedwood (burn), and plateau conifer-black spruce (dry and bog).

**\*Lincoln's Sparrow (*Melospiza lincolni*)** - scarce summer resident. One singing in the vicinity of springs in slope coniferous-mixedwood (burn) habitat.

**\*White-throated Sparrow (*Zonotrichia albicollis*)** - uncommon summer resident. Found mainly in slope meadow complex habitats. Also occurs in slope deciduous birch/aspen, slope coniferous-mixedwood (burn) and plateau coniferous-mixedwood.

**\*Dark-eyed Junco (*Junco hyemalis*)** - common summer resident, mainly in plateau coniferous-mixedwood and slope coniferous-mixedwood. Also recorded in plateau conifer-black spruce (dry, bog and burn) and plateau conifer-pine (burn). The typical subspecies of the area is the Slate-colored Junco (*Junco hyemalis hyemalis*); however, two individuals with Slate-colored X Oregon (*J. h. oregonus*) hybrid plumage features were recorded.

**White-winged Crossbill (*Loxia leucoptera*)** - scarce resident in slope coniferous-mixedwood in June and August. This species is irruptive, becoming abundant during years with more plentiful cone crops.

**Common Redpoll (*Carduelis flammea*)** - scarce winter visitor flying over slope meadow complex habitat.

**\*Pine Siskin (*Carduelis pinus*)** - common summer resident. Most numerous in plateau and slope coniferous-mixedwood. Also recorded in plateau conifer-black spruce (dry bog and burn), plateau conifer-pine (burn), slope coniferous-mixedwood (burn), slope deciduous-mixedwood and meadow complex habitats (including riparian poplar-alder-white spruce).

**Evening Grosbeak (*Coccothraustes vespertinus*)** - scarce resident in slope coniferous-mixedwood (mixedwood-meadow) and plateau deciduous birch/aspen (aspen).



**\*Rose-breasted Grosbeak (*Pheucticus ludovicianus*)** - scarce summer resident in slope coniferous-mixedwood (white spruce-birch-aspen), deciduous birch/aspen (aspen-birch-meadow) and meadow complex (aspen-birch-meadow-scattered spruce) habitat.

### Appendix 3. ANNOTATED LIST OF AMPHIBIANS

Two species of amphibians were recorded in the study area where breeding habitat appeared to be very limited. Dry conditions during the spring of 2000 may have limited breeding potential in the area. During wetter years, more temporary water would be available for breeding habitat.

**Striped (Northern) Chorus Frog (*Pseudacris triseriata*)** - a single record of 2 calling in a spring-fed pool in slope meadow complex habitat (poplar-aspen-reed grass-alder). Other standing shallow water slope habitats are potential breeding sites for this species.

**Wood Frog (*Rana sylvatica*)** - a single record of 2 small adults in a cut line pool on the plateau. A variety of standing water habitats in the study area are potential breeding sites for this species.

### Appendix 4. ANNOTATED LIST OF MAMMALS

This list comprises 15 species recorded during the wildlife surveys.

**Masked Shrew (*Sorex cinereus*)** - one trapped in plateau coniferous-mixedwood. Expected to occur in other mature coniferous-mixedwood on the plateau and the slope.

**Snowshoe Hare (*Lepus americanus*)** - locally common in plateau and slope coniferous-mixedwood and plateau conifer-black spruce. Highest tracking densities were recorded in plateau conifer-black spruce. Also recorded in slope meadow complex habitat.

**Red Squirrel (*Tamiasciurus hudsonicus*)** - recorded in plateau and slope coniferous-mixedwood, plateau conifer-black spruce (dry and bog), deciduous birch/aspen and meadow complex habitat. Relatively scarce during the survey period, but locally common in plateau black spruce.

**Deer Mouse (*Peromyscus maniculatus*)** - three individuals trapped, in slope coniferous-mixedwood (white spruce-birch-meadow), deciduous birch/aspen and meadow complex habitat (reed grass-creek). Can be expected to occur in most mesic wooded habitats, including plateau coniferous-mixedwood.

**Southern Red-backed Vole (*Clethrionomys gapperi*)** - the most abundant small mammal on trapping transects. A total of 8 were captured in plateau and slope coniferous-mixedwood and plateau conifer-black spruce.

**Meadow Jumping Mouse (*Zapus hudsonius*)** - 2 trapped in slope meadow complex (reed grass-creek) habitat. Expected to occur in similar lush meadow habitats on the slope.

**Coyote (*Canis latrans*)** - scarce. Recorded in disturbed cut line (within plateau conifer-black spruce) and slope conifer-mixedwood habitats.

**Gray Wolf (*Canis lupus*)** - apparently scarce. Recorded in plateau coniferous-mixedwood

(pine-black spruce-white spruce-scattered birch), and on a disturbed cut line in slope deciduous habitat.

**Black Bear (*Ursus americanus*)** - relatively uncommon. Recorded in plateau coniferous-mixedwood (burn), slope deciduous, slope coniferous mixedwood and meadow complex habitat. An unusual record of recent tracks in snow, in slope coniferous-mixedwood, during the January tracking surveys.

**Marten (*Martes americana*)** - fairly common. Recorded in plateau and slope coniferous-mixedwood, conifer-black spruce, and meadow complex habitat.

**[Fisher (*Martes pennanti*) - ]** - hypothetical. Large *Martes* scat, recorded in conifer-black spruce, may have been of this species. Fishers occur in the general region.

**Canada Lynx (*Lynx canadensis*)** - scarce. A single record of tracks in south slope meadow complex habitat during the winter tracking surveys.

**Wapiti (*Cervus elaphus*)** - locally common in winter in plateau and slope coniferous-mixedwood, conifer-black spruce and meadow complex habitat. Highest densities recorded in north slope coniferous-mixedwood. In summer, recorded sparingly in slope meadow complex habitat (birch-aspen-meadow) and plateau coniferous-mixedwood (including pine-fir).

**Mule Deer (*Odocoileus hemionus*)** - relatively local and uncommon in the study area compared with White-tailed Deer. Observed sparingly in plateau coniferous-mixedwood along the edge of the plateau in June.

**White-tailed Deer (*Odocoileus virginianus*)** - more widespread in the study area than Mule Deer. Deer sign (apparently mostly of this species) locally abundant in winter in plateau and slope coniferous-mixedwood and slope meadow complex habitats.

**Moose (*Alces alces*)** - Common and widespread in the study area, occurring in all major habitats. In winter, the highest densities were recorded in plateau black spruce and plateau and slope mixedwood.

## **APPENDIX 5. WILDLIFE DATABASE RECORDS**

The following is a sample printout of the wildlife database. The original database is in Access 97 format.



[illegible]







PROJECT	DATE	UTM EASTING NO#	VEG. TYPE	SPECIES	MALE	FEMALE	JUVENILE	KIND	TOTAL	ADULTS	%B	%NG	%JUN	%HAWK	%FOOD	TYPE	NOTES
CAB8	2000-06-28	623475	6114349 CONIFER-BLACK SPRUCE (PLATEAU B SP-FIR/PIN)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CAB8	2000-06-28	623475	6114349 CONIFER-BLACK SPRUCE (PLATEAU B SP-FIR/PIN)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CAB8	2000-06-28	623475	6114349 CONIFER-BLACK SPRUCE (PLATEAU B SP-FIR/PIN)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CR31	2000-06-28	623805	6118953 CONIFER-BLACK SPRUCE (PLATEAU CONIFER)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CR1	2000-06-28	627802	6110651 CONIFER-BLACK SPRUCE (WETLAND)	DARK-EYED JUNCO	0	0	2	2	0	0	0	0	0	0	O CALL	UNKNOWN	
CR3	2000-06-28	627365	6110632 CONIFER-PINE (BLRN)	DARK-EYED JUNCO	2	0	0	2	2	0	0	0	0	0	SONG	UNKNOWN	SITE #32
CR18	2000-06-27	625205	6119425 CONIFEROUS-MIXEDWOOD (PLATEAU)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CR5	2000-06-28	625014	6120086 CONIFEROUS-MIXEDWOOD (PLATEAU)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CR25	2000-06-28	627819	6110065 CONIFEROUS-MIXEDWOOD (BLRN; B SPRUCES S	DARK-EYED JUNCO	3	0	0	3	3	0	0	0	0	0	SONG	UNKNOWN	
CA7	2000-06-28	622934	6113802 CONIFEROUS-MIXEDWOOD (PINE SPR-FIR-BIRCH	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CA11	2000-06-28	624230	615776 CONIFEROUS-MIXEDWOOD (PINE SPR-FIR-BIRCH	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CA10	2000-06-28	623787	6114874 CONIFEROUS-MIXEDWOOD (PLATEAU MIXEWO	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CA10	2000-06-28	623787	6114874 CONIFEROUS-MIXEDWOOD (PLATEAU MIXEWO	DARK-EYED JUNCO	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CA6	2000-06-28	622480	6114150 CONIFEROUS-MIXEDWOOD (SLOPE MIXEDWOOD	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CA6	2000-06-28	622480	6114150 CONIFEROUS-MIXEDWOOD (SLOPE MIXEDWOOD	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CR23	2000-06-28	623044	6120410 CONIFEROUS-MIXEDWOOD (SLOPE SPR-PINE-AS	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CA5	2000-06-28	622108	6114827 CONIFEROUS-MIXEDWOOD (SLOPE)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CR28	2000-06-28	623901	6120194 CONIFEROUS-MIXEDWOOD (SLOPE)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CA1	2000-06-28	623803	6110140 CONIFEROUS-MIXEDWOOD (SLOPE-BURN)	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CA1	2000-06-28	623803	6110140 CONIFEROUS-MIXEDWOOD (SLOPE-BURN)	DARK-EYED JUNCO	1	1	1	3	2	0	1	0	0	0	OTHER	UNKNOWN	OFF CR7
RAND0	2000-06-26	624539	6109654 CONIFEROUS-MIXEDWOOD (SP-BIRCH-ASPEN-SC	DARK-EYED JUNCO	1	1	1	3	2	0	1	0	0	0	SONG	UNKNOWN	OFF CR10 FAMILY GROUP
RAND0	2000-06-26	623012	6108468 CONIFEROUS-MIXEDWOOD (SP-FIR-BIRCH PLAT	DARK-EYED JUNCO	1	0	0	1	1	0	0	0	0	0	OTHER	UNKNOWN	OFF CR5
RAND0	2000-06-26	623526	6110153 CONIFEROUS-MIXEDWOOD (W SPRUCE-BIRCH-HI	DEER MOUSE	1	0	0	1	1	0	0	1	0	0	OTHER	UNKNOWN	
M8	2000-09-07	625966	6119988 CONIFEROUS-MIXEDWOOD (SLOPE SPR -BIRCH-	DEER MOUSE	0	0	0	1	1	0	0	0	0	0	OTHER	UNKNOWN	
M4	2000-08-08	622062	6113972 DECIDUOUS BIRCH-ASPEN (SLOPE)	DEER MOUSE	0	0	0	1	1	0	0	0	0	0	OTHER	UNKNOWN	
M9	2000-09-07	625919	6120423 MEADOW COMPLEX (REED GRASS-GREEN)	DEER MOUSE	0	0	3	3	3	0	0	0	0	0	O CALL	UNKNOWN	
CA6	2000-06-28	622480	6114150 CONIFEROUS-MIXEDWOOD (SLOPE MIXEDWOOD	EVENING GROSBREAK	0	0	2	2	0	0	0	0	0	0	2 FLY	UNKNOWN	
RAND0	2000-06-28	622934	6114148 DECIDUOUS BIRCH-ASPEN (PLATEAU ASPEN)	EVENING GROSBREAK	0	0	1	1	0	0	0	0	0	0	1 CALL	UNKNOWN	FLYING OVER B8
RAND0	2000-06-28	622934	6114148 DECIDUOUS BIRCH-ASPEN (PLATEAU ASPEN)	EVENING GROSBREAK	0	0	1	1	0	0	0	0	0	0	SONG	UNKNOWN	ON M6
CR39	2000-06-28	623876	6119306 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GOLDEN-CROWNED KINLET	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	OFF CA7
CR30	2000-06-28	623800	6118937 CONIFEROUS-MIXEDWOOD (PINE-B/I W SPRUCES S	GOLDEN-CROWNED KINLET	1	0	0	1	1	0	0	0	0	0	O CALL	UNKNOWN	OFF CR31 BLACK SPRUCE-SCATTERED PI
CR30	2000-06-28	623800	6118937 CONIFEROUS-MIXEDWOOD (PINE-B/I W SPRUCES S	GOLDEN-CROWNED KINLET	0	0	2	2	0	0	0	0	0	0	O CALL	UNKNOWN	
CR30	2000-06-28	623800	6118937 CONIFEROUS-MIXEDWOOD (PINE-B/I W SPRUCES S	GOLDEN-CROWNED KINLET	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CR19	2000-08-07	621217	6115106 CONIFEROUS-MIXEDWOOD (PLATEAU SPRUCE-A	GOLDEN-CROWNED KINLET	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CR19	2000-08-27	625439	6119384 CONIFEROUS-MIXEDWOOD (PLATEAU W SPRUC	GOLDEN-CROWNED KINLET	0	0	1	1	0	0	0	0	0	0	SONG	UNKNOWN	
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GOLDEN-CROWNED KINLET	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	
CA12	2000-06-28	624950	6116462 CONIFEROUS-MIXEDWOOD (SP-SPR-MEAD-FIR/PI	GOLDEN-CROWNED KINLET	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	OFF CR7
RAND0	2000-06-26	624539	6109654 CONIFEROUS-MIXEDWOOD (SP-BIRCH-ASPEN-SC	GOLDEN-CROWNED KINLET	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CR24	2000-06-28	6230286	6102478 CONIFEROUS-MIXEDWOOD (SP-PINE-ASPEN-ME	GOLDEN-CROWNED KINLET	0	0	2	2	0	0	0	0	0	0	O CALL	UNKNOWN	
CR10	2000-06-26	623012	6108468 CONIFEROUS-MIXEDWOOD (SPRUCE-FIR-BIRCH)	GOLDEN-CROWNED KINLET	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CR4	2000-06-26	623012	6108468 CONIFEROUS-MIXEDWOOD (SPRUCE-FIR-BIRCH)	GOLDEN-CROWNED KINLET	1	0	0	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CR4	2000-06-26	623012	6108468 CONIFEROUS-MIXEDWOOD (SPRUCE-FIR-BIRCH)	GOLDEN-CROWNED KINLET	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-09-07	626272	6119926 CONIFEROUS-MIXEDWOOD (WHITE SPRUCE-BIRCH	GOLDEN-CROWNED KINLET	0	0	1	1	0	0	0	0	0	0	O CALL	UNKNOWN	
CA2	2000-06-26	626231	6110288 MEADOW COMPLEX (RIPARIAN POPLAR-ALDER-W	GOLDEN-CROWNED KINLET	0	0	1	1	0	0	0	0	0	0	O CALL	UNKNOWN	
CR11	2000-06-26	622374	6108142 CONIFER- BLACK SPRUCE (PLATEAU)	GRAY JAY	0	0	1	1	0	0	0	0	0	0	2 CALL	UNKNOWN	
RAND0	2000-09-06	625927	6119427 CONIFER-BLACK SPRUCE (AT EDGE OF SEDGE P	GRAY JAY	0	0	2	2	0	0	0	0	0	0	2 CALL	UNKNOWN	ON M7
CR6	2000-06-26	625340	6110050 CONIFER-BLACK SPRUCE (DRY)	GRAY JAY	0	0	2	2	0	0	0	0	0	0	2 CALL	UNKNOWN	
CR1	2000-06-26	627802	6109515 CONIFER-BLACK SPRUCE (WETLAND)	GRAY JAY	0	0	1	1	0	0	0	0	0	0	1 CALL	UNKNOWN	
CR25	2000-06-28	625014	6120086 CONIFEROUS-MIXEDWOOD (PLATEAU)	GRAY JAY	0	0	1	1	0	0	0	0	0	0	1 CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	OTHER	UNKNOWN	OFF CR31 BLACK SPRUCE-SCATTERED PI
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	OTHER	UNKNOWN	ON W6
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	OTHER	UNKNOWN	PIKE-SPRUCE-BIRCH-ASPEN-GRASS MEAD
CA6	2000-06-28	622480	6114150 CONIFEROUS-MIXEDWOOD (SLOPE MIXEDWOOD	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GRAY JAY	0	0	1	1	0	0	0	0	0	0	1 CALL	UNKNOWN	
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GRAY JAY	0	0	2	2	0	0	0	0	0	0	2 CALL	UNKNOWN	
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GRAY JAY	0	0	2	2	0	0	0	0	0	0	OTHER	UNKNOWN	ON W3A
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GRAY JAY	0	0	2	2	0	0	0	0	0	0	OTHER	UNKNOWN	CA7 MORE BLACK SPRUCE THAN WHITE
RAND0	2000-06-28	625927	6110279 CONIFEROUS-MIXEDWOOD (W SPRUCE-BIRCH-PI	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CA6	2000-06-28	622480	6114150 CONIFEROUS-MIXEDWOOD (SLOPE MIXEDWOOD	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GRAY JAY	0	0	1	1	0	0	0	0	0	0	1 CALL	UNKNOWN	
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GRAY JAY	0	0	2	2	0	0	0	0	0	0	2 CALL	UNKNOWN	
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GRAY JAY	0	0	2	2	0	0	0	0	0	0	OTHER	UNKNOWN	ON W3A
CA9	2000-06-28	623861	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	GRAY JAY	0	0	2	2	0	0	0	0	0	0	OTHER	UNKNOWN	CA7 MORE BLACK SPRUCE THAN WHITE
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0	0	0	0	O CALL	UNKNOWN	
RAND0	2000-06-28	623014	6118033 CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)	GRAY JAY	0	0	1	1	1	0	0</						







PROJID	DATE	UTM	EDUM	NOF	VEG	TYPE	SPECIES	MALE	FEMALE	UNK	TOT	ADULT	SUB	YNG	YNG	UNDEVELOPED	HAIR	TYPE	NOTES			
CR15	2000-06-27	624200	6119350	DECIDUOUS BIRCH/ASPEN (ASPEN-BIRCH-MEAD			MOURNING WARBLER	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN			
CR27	2000-06-28	623365	6119608	DECIDUOUS BIRCH/ASPEN (SLOPE ASPEN)			MOURNING WARBLER	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN			
CR13	2000-06-28	621080	6108150	MEADOW COMPLEX ASPEN-BIRCH-ALDER-MEAD			MOURNING WARBLER	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN	HEAVILY BROWSED ELDER		
CA3	2000-06-28	624490	6119485	MEADOW COMPLEX ASPEN-BIRCH-MEADOW-SC			MOURNING WARBLER	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN			
CA4	2000-06-28	625024	6119517	MEADOW COMPLEX (BIRCH-ASPEN-MEADOW-SC			MOURNING WARBLER	1	0	0	1	1	0	0	0	0	0	SONG	UNKNOWN			
RAND0	2000-08-07	618977	6099823	CONIFEROUS-MIXEDWOOD (PINE-BLACK SPRUCE			NORTHERN FLICKER	0	0	1	1	1	0	0	0	0	0	CALL	UNKNOWN	CALLING IN WETLAND EDGE WOODS		
CA1	2000-06-28	628035	6110140	CONIFEROUS-MIXEDWOOD (SLOPE-BLACK SPRUCE			NORTHERN FLICKER	0	0	1	1	1	0	0	0	0	0	OTHER	UNKNOWN			
RAND0	2000-09-06	625738	6119426	CONIFEROUS-MIXEDWOOD (W. SPRUCE-ASPEN-B			NORTHERN FLICKER	0	0	1	1	1	0	0	0	0	1	CALL	UNKNOWN			
B3	2000-08-06	621061	6104216	OPEN BOG (P. CONTORTA-ANDROMEDA-CHAMAE			NOT ENTERED	0	0	1	1	0	0	0	0	0	0	0	SIGN	BROWSE	IN V4: PINUS CONTORTA-ANDROMEDA-CH	
RAND0	2000-09-06	625927	6119427	CONIFER-BLACK SPRUCE (PLATEAU)			OLIVE-SIDED FLYCATCHER	0	0	1	1	0	0	0	0	0	0	0	CALL	UNKNOWN	OFF CA1	
RAND0	2000-06-28	628035	6110140	CONIFEROUS-MIXEDWOOD (MIXED PINE-BIRCH-A			OLIVE-SIDED FLYCATCHER	1	0	0	1	1	0	0	0	0	0	0	SONG	UNKNOWN		
RAND0	2000-09-06	625926	6120317	MEADOW COMPLEX (MIX. DECIDUOUS MEADOW/			PILEATED WOODPECKER	0	1	1	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	OFF CA1
CR11	2000-06-28	622974	6108142	CONIFER- BLACK SPRUCE (PLATEAU)			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN	ON M6	
RAND0	2000-09-06	626046	6119575	CONIFER-BLACK SPRUCE (AT EDGE OF OPEN BO			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	CALL	UNKNOWN	ON M6	
CA13	2000-06-28	625229	6117056	CONIFER-BLACK SPRUCE (BURN)			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	CALL	UNKNOWN	ON M6	
CR31	2000-06-28	628005	6118803	CONIFER-BLACK SPRUCE (PLATEAU CONIFER)			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	CALL	UNKNOWN	ON M6	
CR1	2000-06-28	627602	6109515	CONIFER-BLACK SPRUCE (WETLAND)			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	OTHER	UNKNOWN	AT EDGE	
CR3	2000-06-28	627365	6110632	CONIFER-PINE (BURN)			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	FLY	UNKNOWN		
CR18	2000-06-27	625205	6119425	CONIFEROUS-MIXEDWOOD			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN		
CR12	2000-06-28	627819	6110065	CONIFEROUS-MIXEDWOOD (BURN: B. SPRUCE-S			PINE SISKIN	0	0	3	3	3	0	0	0	0	0	0	CALL	UNKNOWN		
CA11	2000-06-28	624320	6115776	CONIFEROUS-MIXEDWOOD (PINE-SPR-FIR-BIRCH			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN	more white than black spruce	
RAND0	2000-06-28	623475	6114349	CONIFEROUS-MIXEDWOOD (PLATEAU B SP. SC. F			PINE SISKIN	0	0	3	3	3	0	0	0	0	0	0	CALL	UNKNOWN	OFF CA8	
RAND0	2000-06-28	626745	6119306	CONIFEROUS-MIXEDWOOD (PLATEAU CONIFER)			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN		
CR26	2000-06-28	629572	6119679	CONIFEROUS-MIXEDWOOD (PLATEAU MIXEDWO			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	FLY	UNKNOWN		
CR2	2000-06-28	629577	6119679	CONIFEROUS-MIXEDWOOD (PLATEAU MIXEDWO			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN		
CA10	2000-06-28	623787	6114874	CONIFEROUS-MIXEDWOOD (PLATEAU MIXEDWO			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	FLY	UNKNOWN		
CR19	2000-06-27	625499	6119384	CONIFEROUS-MIXEDWOOD (PLATEAU W. SPRUC			PINE SISKIN	1	0	1	2	1	0	0	0	0	0	0	SONG	UNKNOWN		
CR19	2000-06-27	625499	6119384	CONIFEROUS-MIXEDWOOD (PLATEAU W. SPRUC			PINE SISKIN	1	0	1	2	1	0	0	0	0	0	0	SONG	UNKNOWN		
CA6	2000-06-28	622480	6114150	CONIFEROUS-MIXEDWOOD (SLOPE MIXEDWOOD-			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN	OFF CA5	
RAND0	2000-06-28	622108	6114827	CONIFEROUS-MIXEDWOOD (SLOPE MIXEDWOOD-			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN	OFF CA5	
CR22	2000-06-28	630812	6120452	CONIFEROUS-MIXEDWOOD (SLOPE SPR-BIRCH-S			PINE SISKIN	0	0	10	10	0	0	0	0	0	0	0	CALL	UNKNOWN		
CR23	2000-06-28	630341	6120410	CONIFEROUS-MIXEDWOOD (SLOPE SPR-PINE-AS			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN		
RAND0	2000-08-08	622000	6114700	CONIFEROUS-MIXEDWOOD (SLOPE)			PINE SISKIN	0	0	40	40	0	0	0	0	0	0	40	CALL	UNKNOWN		
CR28	2000-06-28	623901	6120194	CONIFEROUS-MIXEDWOOD (SLOPE)			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN		
CA1	2000-06-28	628035	6110140	CONIFEROUS-MIXEDWOOD (SLOPE BURN)			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN		
CA12	2000-06-28	624950	6116420	CONIFEROUS-MIXEDWOOD (SP-ASP-MEAD-FIR-PI			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN		
CR24	2000-06-28	630286	6120478	CONIFEROUS-MIXEDWOOD (SP-PINE-ASPEN-MEA			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	CALL	UNKNOWN		
CR7	2000-06-28	624539	6109654	CONIFEROUS-MIXEDWOOD (W. SPRUCE-BIRCH-A			PINE SISKIN	0	0	4	4	4	0	0	0	0	0	0	FLY	UNKNOWN		
CR4	2000-06-28	626025	6110279	CONIFEROUS-MIXEDWOOD (W. SPRUCE-BIRCH-P			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	CALL	UNKNOWN		
CR5	2000-06-28	625626	6110153	DECIDUOUS-MIXEDWOOD (W. SPRUCE-BIRCH-PI			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	FLY	UNKNOWN		
CA3	2000-06-28	624490	6119485	MEADOW COMPLEX ASPEN-BIRCH-MEADOW-SC			PINE SISKIN	0	0	2	2	2	0	0	0	0	0	0	CALL	UNKNOWN		
CA2	2000-06-28	626231	6110288	MEADOW COMPLEX (RIPARIAN POPLAR-ALDER-W			PINE SISKIN	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN	OFF CR21	
RAND0	2000-06-27	625825	6120460	MEADOW COMPLEX (SLOPE BIRCH-ASPEN-MEAD			PINE SISKIN	0	0	6	6	6	0	0	0	0	0	0	FLY	UNKNOWN		
CR9	2000-06-28	623637	6108787	MEADOW COMPLEX (W SP-BIRCH-ALDER-REED G			PINE SISKIN	0	0	7	7	4	0	0	0	0	0	4	SIGN	UNKNOWN		
W1	2001-01-15	625980	6119764	CONIFER-BLACK SPRUCE			RED SQUIRREL	0	0	7	7	0	0	0	0	0	0	7	SIGN	UNKNOWN		
W1	2001-01-15	625980	6119764	CONIFER-BLACK SPRUCE			RED SQUIRREL	0	0	1	1	0	0	0	0	0	0	1	SIGN	UNKNOWN		
W1	2001-01-15	625980	6119764	CONIFER-BLACK SPRUCE			RED SQUIRREL	0	0	1	1	0	0	0	0	0	0	1	SIGN	UNKNOWN	ON M6	
RAND0	2000-09-06	626046	6119575	CONIFER-BLACK SPRUCE (AT EDGE OF OPEN BO			RED SQUIRREL	0	0	2	2	2	0	0	0	0	0	0	CALL	UNKNOWN	ON M7	
RAND0	2000-09-06	625927	6119427	CONIFER-BLACK SPRUCE (AT EDGE OF SEDGE P			RED SQUIRREL	0	0	1	1	0	0	0	0	0	0	1	CALL	UNKNOWN	ON M7	
RAND0	2000-09-06	625976	6119741	CONIFER-BLACK SPRUCE (PLATEAU)			RED SQUIRREL	0	0	1	1	0	0	0	0	0	0	1	SIGN	UNKNOWN	MIDDEN	
RAND0	2000-09-06	625959	6119700	CONIFER-BLACK SPRUCE (PLATEAU)			RED SQUIRREL	0	0	1	1	0	0	0	0	0	0	1	SIGN	UNKNOWN	MIDDEN	
RAND0	2000-06-26	627556	6109805	CONIFER-BLACK SPRUCE (WETLAND)			RED SQUIRREL	0	0	1	1	0	0	0	0	0	0	0	1	SIGN	UNKNOWN	
RAND0	2000-08-06	624240	6104860	CONIFER-PINE (PINE-BLUEBERRY)			RED SQUIRREL	0	0	1	1	1	0	0	0	0	0	0	OTHER	UNKNOWN	CR1	
W8	2001-01-15	625936	6120175	CONIFEROUS-MIXEDWOOD (NORTH SLOPE MIXE			RED SQUIRREL	0	0	1	1	1	0	0	0	0	0	0	OTHER	UNKNOWN	V2	
W8	2001-01-15	625936	6120175	CONIFEROUS-MIXEDWOOD (NORTH SLOPE MIXE			RED SQUIRREL	0	0	1	1	1	0	0	0	0	0	0	2	SIGN	UNKNOWN	
RAND0	2000-06-28	624320	6115776	CONIFEROUS-MIXEDWOOD (PINE-PINE-SPR-BI			RED SQUIRREL	0	0	1	1	1	0	0	0	0	0	0	1	SIGN	UNKNOWN	CA11: more white than black spruce
RAND0	2000-06-28	624320	6115776	CONIFEROUS-MIXEDWOOD (PINE-PINE-SPR-BI			RED SQUIRREL	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN	CA5	
CR23	2000-06-28	630341	6120410	CONIFEROUS-MIXEDWOOD (SLOPE SPR-PINE-AS			RED SQUIRREL	0	0	1	1	1	0	0	0	0	0	0	CALL	UNKNOWN		

than black spruce







PROJID	DATE	UTM	EQUIM	NOI	VEG	TYPE	SPECIES	MALE	FEMALE	UNK	TOTAL	ADJ	SUB	YNG	IND	UNB	BEHAV	FOOD	TYPE	NOTES
M10	2000-09-07	625836	6119685	CONFIFER-BLACK SPRUCE (EDGE)			SOUTHERN RED BACKED VO	0	0	1	1	0	0	0	0	0	0	OTHER	UNKNOWN	5X2 TRAPS
M11	2000-09-07	625812	6119687	CONFIFERUS MIXEDWOOD (BLACK SPRUCE-FIR-			SOUTHERN RED BACKED VO	0	0	2	2	0	0	0	0	0	2	OTHER	UNKNOWN	10X2 TRAPS, WPT 272
M1	2000-08-08	622047	6114571	CONFIFERUS MIXEDWOOD (PLATEAU) CONFIFER			SOUTHERN RED BACKED VO	0	0	1	1	0	0	0	0	0	0	OTHER	UNKNOWN	
M8	2000-09-07	625966	6119968	CONFIFERUS MIXEDWOOD (SLOPE SPR- BIRCH-			SOUTHERN RED BACKED VO	0	0	3	3	3	0	0	0	0	0	OTHER	UNKNOWN	10x2 TRAPS, 4 TRAPS PREDATED
RAN00	2000-06-26	622974	6108142	CONFIFER-BLACK SPRUCE (PLATEAU)			SPRUCE GROUSE	0	0	1	1	1	0	0	0	0	0	SIGN	UNKNOWN	CR11
RAN00	2000-08-06	621685	6104226	CONFIFER-BLACK SPRUCE			SPRUCE GROUSE	0	0	1	1	1	0	0	0	0	0	OTHER	UNKNOWN	
RAN00	2000-06-26	625340	6110050	CONFIFER-BLACK SPRUCE (DRY)			SPRUCE GROUSE	0	0	1	1	1	0	0	0	0	0	OTHER	UNKNOWN	OFF CR6
RAN00	2000-09-06	625927	6119427	CONFIFER-BLACK SPRUCE (PLATEAU)			SPRUCE GROUSE	1	0	0	1	1	0	0	0	0	0	OTHER	UNKNOWN	
RAN00	2000-06-26	627819	6110065	CONFIFERUS MIXEDWOOD (ISLOPE PINE-SPR- S			SPRUCE GROUSE	0	0	1	1	1	0	0	0	0	0	SIGN	UNKNOWN	OFF CR2
RAN00	2000-06-28	622108	6114827	CONFIFERUS MIXEDWOOD (ISLOPE PINE-SPR- BI			SPRUCE GROUSE	0	0	1	1	1	0	0	0	0	0	SIGN	UNKNOWN	OFF CA5
RAN00	2000-06-28	630314	6120086	CONFIFERUS MIXEDWOOD ( PLATEAU)			SWAINSON'S THRUSH	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	OFF CR25, BLACK SPRUCE SPHAGNUM-FE
CA6	2000-06-28	622480	6114150	CONFIFERUS MIXEDWOOD (SLOPE MIXEDWOOD-			SWAINSON'S THRUSH	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CR22	2000-06-28	630812	6120452	CONFIFERUS MIXEDWOOD (SLOPE SPR-BIRCH-S			SWAINSON'S THRUSH	3	0	0	3	3	0	0	0	0	0	0	UNKNOWN	SITE #66, LARGE HALF CIRCLE FROM EDG
CR26	2000-06-28	623972	6119679	CONFIFERUS MIXEDWOOD (PLATEAU) MIXEDMO			SWAINSON'S THRUSH	2	0	0	2	2	0	0	0	0	0	0	UNKNOWN	
CA10	2000-06-28	623787	6114874	CONFIFERUS MIXEDWOOD (PLATEAU) MIXEDMO			SWAINSON'S THRUSH	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CR29	2000-06-28	630341	6120410	CONFIFERUS MIXEDWOOD (SLOPE SPR-PINE-AS			SWAINSON'S THRUSH	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CA9	2000-06-28	623661	6114164	CONFIFERUS MIXEDWOOD (SLOPE)			SWAINSON'S THRUSH	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
RAN00	2000-06-28	622900	6113800	CONFIFERUS MIXEDWOOD (SLOPE)			SWAINSON'S THRUSH	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CR28	2000-06-28	623931	6120194	CONFIFERUS MIXEDWOOD (ISLOPE)			SWAINSON'S THRUSH	4	0	0	4	4	0	0	0	0	0	0	UNKNOWN	
CR24	2000-06-28	630286	6120478	CONFIFERUS MIXEDWOOD (SP-PINE-ASPEN-MEA			SWAINSON'S THRUSH	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
CR4	2000-06-26	626025	6110279	CONFIFERUS MIXEDWOOD (W- SPRUCE BIRCH-P			SWAINSON'S THRUSH	2	0	0	2	2	0	0	0	0	0	0	UNKNOWN	
CR17	2000-06-27	624734	6119460	MEADOW COMPLEX (ALDER-SCATTERED BIRCH/I			SWAINSON'S THRUSH	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	DENSE ALDER
RAN00	2000-08-06	624240	6104080	CONFIFER-PINE (PINE-BLUEBERRY)			TENNESSEE WARBLER	1	0	0	2	2	0	0	0	0	0	0	UNKNOWN	Y2
RAN00	2000-06-28	624320	6115776	CONFIFERUS MIXEDWOOD (PINE-SPRUCE-FIR-BI			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	OFF CA11 AT BLACK SPRUCE BOG EDGE, C
RAN00	2000-06-28	625972	6119679	CONFIFERUS MIXEDWOOD (PLATEAU) MIXEDMO			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	OFF CR26, OPEN WHITE SPRUCE-ASPEN W
RAN00	2000-06-26	624105	6109295	CONFIFERUS MIXEDWOOD (W- SPRUCE-ASPEN-S			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	OFF CR8
CR4	2000-06-26	626025	6110279	CONFIFERUS MIXEDWOOD (W- SPRUCE BIRCH-P			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CR13	2000-06-26	621080	6108150	MEADOW COMPLEX (ASPEN-BIRCH-ALDER-MEAD			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CR14	2000-06-26	620741	6108143	MEADOW COMPLEX (ASPEN-BIRCH-ALDER-REED			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CA3	2000-06-26	624490	6119485	MEADOW COMPLEX (ASPEN-BIRCH- MEADOW-SC			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CA4	2000-06-26	625024	6119517	MEADOW COMPLEX (BIRCH-ASPEN-MEADOW-SC			TENNESSEE WARBLER	2	0	0	2	2	0	0	0	0	0	0	UNKNOWN	
CR12	2000-06-26	621388	6108093	MEADOW COMPLEX (POP-LAR-ASPEN-REED GRAS			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CR1	2000-06-27	625825	6120460	MEADOW COMPLEX (SLOPE BIRCH- MEADOW-SC			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
CR9	2000-06-26	623637	6108787	MEADOW COMPLEX (W-SP-BIRCH-ALDER-REED G			TENNESSEE WARBLER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	ON W2
RAN00	2000-01-15	625859	6119347	CONFIFER-BLACK SPRUCE (BOG)			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
CA13	2000-06-28	625229	6117056	CONFIFER-BLACK SPRUCE (BURN)			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	CR3
RAN00	2000-06-26	626820	6110323	CONFIFER-PINE (BURN)			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	OFF CR25 AT OUTLINE EDGE
CR3	2000-06-26	627365	6110632	CONFIFER-PINE (BURN)			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
RAN00	2000-06-28	630314	6120086	CONFIFERUS MIXEDWOOD ( PLATEAU)			THREE-TOED WOODPECKER	0	0	2	2	2	0	0	0	0	0	0	UNKNOWN	OFF CR2, NEST 5.5 M UP IN BURNED PINE
CR2	2000-06-26	627819	6110065	CONFIFERUS MIXEDWOOD (BURN, B- SPRUCE-S			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	ON W4, 3 FRESH FEEDING SIGNS (BARK C
RAN00	2000-06-26	627819	6110065	CONFIFERUS MIXEDWOOD (BURN, B- SPRUCE-S			THREE-TOED WOODPECKER	0	0	3	3	3	0	0	0	0	0	0	UNKNOWN	OFF CA10
RAN00	2000-01-15	625860	6119110	CONFIFERUS MIXEDWOOD (PLATEAU) CONFIFER			THREE-TOED WOODPECKER	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN	
RAN00	2000-06-28	623787	6114874	CONFIFERUS MIXEDWOOD (PLATEAU) MIXEDMO			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
CR26	2000-06-28	623972	6119679	CONFIFERUS MIXEDWOOD (PLATEAU) MIXEDMO			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	OFF CA5
RAN00	2000-06-28	623972	6114827	CONFIFERUS MIXEDWOOD (SLOPE PINE-SPR- BI			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
CR22	2000-06-28	630812	6120452	CONFIFERUS MIXEDWOOD (SLOPE SPR-BIRCH-S			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
CR23	2000-06-28	630341	6120410	CONFIFERUS MIXEDWOOD (SLOPE SPR-PINE-AS			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
CR24	2000-06-28	630286	6120478	CONFIFERUS MIXEDWOOD (SP-PINE-ASPEN-MEA			THREE-TOED WOODPECKER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
CA2	2000-06-26	626231	6110288	MEADOW COMPLEX (RIP-ARIAN POP-LAR-ALDER-W			TREE SWALLOW	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
M2	2000-08-08	622073	6114521	CONFIFER-BLACK SPRUCE (WETLAND)			UNIDENTIFIED CRICETID	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	NOTHING CAPTURED
M3	2000-08-08	622072	6114148	DECIDUOUS BIRCH-ASPEN (PLATEAU) ASPEN)			UNIDENTIFIED CRICETID	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	NOTHING CAPTURED
M6	2000-09-07	626046	6119575	OPEN BOG			UNIDENTIFIED CRICETID	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	10x2 TRAPS, NOTHING CAPTURED
M7	2000-09-07	625927	6119427	OPEN BOG (JUNCUS FILIFORMIS POOL EDGE)			UNIDENTIFIED CRICETID	0	0	0	0	0	0	0	0	0	0	0	UNKNOWN	CR20
RAN00	2000-06-27	625915	6119435	CONFIFER-BLACK SPRUCE (PLATEAU)			UNIDENTIFIED DEER	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN	
M1	2000-01-15	625980	6119764	CONFIFER-BLACK SPRUCE			UNIDENTIFIED DEER	0	0	19	19	0	0	0	0	0	0	0	UNKNOWN	
M1	2000-01-15	625980	6119764	CONFIFER-BLACK SPRUCE			UNIDENTIFIED DEER	0	0	19	19	0	0	0	0	0	0	0	UNKNOWN	
M1	2000-01-15	625980	6119764	CONFIFER-BLACK SPRUCE			UNIDENTIFIED DEER	0	0	18	18	0	0	0	0	0	0	0	UNKNOWN	







PROJID	DATE	UTM	EDTM	NOI	VEG. TYPE	SPECIES	MALE	FEMALE	UNK	TOTAL	ADULTS	YNG	UNK	BEHAV	FOOD	TYPE	NOTES
W4	2001-01-15	625900	6119110	CONFEROUS-MIXEDWOOD (PLATEAU CONIFER)	WAPITI	0	0	1	1	0	0	0	0	1	SIGN	UNKNOWN	
RAND0	2000-06-28	628005	6118903	CONFEROUS-MIXEDWOOD (PLATEAU CONIFER)	WAPITI	0	0	1	1	1	0	0	0	0	0	0	OFF CR31. BLACK SPRUCE-SCATTERED PI
RAND0	2000-08-07	622144	6114101	CONFEROUS-MIXEDWOOD (PLATEAU PINE-FIR)	WAPITI	0	0	1	1	0	0	0	0	1	SIGN	UNKNOWN	
W6	2001-01-15	625342	6119692	MEADOW COMPLEX (BIRCH-MEADOW, NORTH SL	WAPITI	0	0	10	10	0	0	0	0	0	0	10	END TRANSECT: 625632E 6120240N
W3A	2001-01-15	625980	6119139	MEADOW COMPLEX (MIXED DECIDUOUS- MEADOW	WAPITI	0	0	4	3	0	0	0	0	0	0	3	END TRANSECT: 625987E 6118936N. MID
W3B	2001-01-15	626151	6118979	MEADOW COMPLEX (MIXED DECIDUOUS- MEADOW	WAPITI	0	0	4	3	0	0	0	0	0	0	3	END TRANSECT: 625987E 6118936N. MID
W3B	2001-01-15	626151	6118979	MEADOW COMPLEX (MIXED DECIDUOUS- MEADOW	WAPITI	0	0	2	2	0	0	0	0	0	0	2	UNKNOWN
RAND0	2000-06-27	625825	6120460	MEADOW COMPLEX (SLOPE FIR-BIRCH)	WAPITI	0	0	1	1	1	0	0	0	0	0	0	OFF CR21
RAND0	2000-06-28	623012	6108468	CONFEROUS-MIXEDWOOD (SPRUCE-FIR-BIRCH)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR4	2000-06-28	628025	6110279	CONFEROUS-MIXEDWOOD (W. SPRUCE-BIRCH-P)	WAPITI	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN
CR4	2000-06-28	628025	6110279	CONFEROUS-MIXEDWOOD (W. SPRUCE-BIRCH-P)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR4	2000-06-28	628025	6110279	CONFEROUS-MIXEDWOOD (W. SPRUCE-BIRCH-P)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR5	2000-06-28	625826	6110153	DECIDUOUS-MIXEDWOOD (W. SPRUCE-BIRCH-P)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR5	2000-06-28	625826	6110153	DECIDUOUS-MIXEDWOOD (W. SPRUCE-BIRCH-P)	WAPITI	2	0	0	2	2	0	0	0	0	0	0	UNKNOWN
CR17	2000-06-27	624734	6119460	MEADOW COMPLEX (ALDER-SCATTERED BIRCH)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR13	2000-06-28	621080	6108150	MEADOW COMPLEX (ASPEN-BIRCH-ALDER-MEAD)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR14	2000-06-28	620741	6108143	MEADOW COMPLEX (ASPEN-BIRCH-ALDER-REED)	WAPITI	2	0	0	2	2	0	0	0	0	0	0	UNKNOWN
CA3	2000-06-28	624490	6119517	MEADOW COMPLEX (BIRCH-ASPEN-MEADOW-SC	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CA4	2000-06-28	625024	6119517	MEADOW COMPLEX (BIRCH-ASPEN-MEADOW-SC	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR12	2000-06-28	621388	6108093	MEADOW COMPLEX (POP-ASPEN-REED GRAS	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-28	624320	6115776	CONFEROUS-MIXEDWOOD (PINE-SPRUCE-FIR-B)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR26	2000-06-28	628572	6119679	CONFEROUS-MIXEDWOOD (PLATEAU MIXEDW)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CA1	2000-06-28	628035	6110140	CONFEROUS-MIXEDWOOD (SLOPE BUR)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR15	2000-06-27	624200	6119350	DECIDUOUS BIRCH-ASPEN (ASPEN-BIRCH-MEAD)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-28	624109	6109224	MEADOW COMPLEX (ALDER-REED GRASS)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR14	2000-06-28	620741	6108143	MEADOW COMPLEX (ASPEN-BIRCH-ALDER-REED)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CA3	2000-06-28	624490	6119485	MEADOW COMPLEX (ASPEN-BIRCH-ALDER-REED)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-09-07	625887	6120375	MEADOW COMPLEX (BIRCH-ALDER-REED GRASS)	WAPITI	0	0	5	5	0	0	0	0	0	0	5	UNKNOWN
RAND0	2000-09-07	625926	6120371	MEADOW COMPLEX (BIRCH-REED GRASS)	WAPITI	0	0	5	5	0	0	0	0	0	0	5	UNKNOWN
RAND0	2000-06-27	625825	6120460	MEADOW COMPLEX (SLOPE BIRCH-ASPEN-MEAD)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CA3	2000-06-28	624930	6119485	MEADOW COMPLEX (ASPEN-BIRCH-ALDER-REED)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-08-07	621218	6115450	CONFEROUS-MIXEDWOOD (SLOPE FIR-BIRCH-SP	WAPITI	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN
CA6	2000-06-28	622480	6114150	CONFEROUS-MIXEDWOOD (SLOPE SPR-BIRCH-S	WAPITI	0	0	2	2	2	0	0	0	0	0	0	UNKNOWN
CR22	2000-06-28	630812	6120452	CONFEROUS-MIXEDWOOD (SLOPE SPR-BIRCH-S	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR26	2000-06-28	628572	6119679	CONFEROUS-MIXEDWOOD (PLATEAU MIXEDW)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-28	622108	6114827	CONFEROUS-MIXEDWOOD (SLOPE PINE-SPR-BI	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR23	2000-06-28	630941	6120410	CONFEROUS-MIXEDWOOD (SLOPE SPR-PINE-AS	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-28	625346	6118618	CONFEROUS-MIXEDWOOD (SLOPE SPRUCE)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR28	2000-06-28	629301	6120194	CONFEROUS-MIXEDWOOD (SLOPE)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR15	2000-06-27	624200	6119350	DECIDUOUS BIRCH-ASPEN (ASPEN-BIRCH-MEAD)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-27	624200	6108143	MEADOW COMPLEX (ASPEN-BIRCH-MEADOW)	WAPITI	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-28	629911	6119980	CONFEROUS-MIXEDWOOD (PLATEAU ASPEN-SP	WAPITI	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-09-07	626272	6119926	CONFEROUS-MIXEDWOOD (WHITE SPRUCE-BIRCH	WAPITI	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-08-07	622195	6114824	DECIDUOUS BIRCH-ASPEN (SLOPE BIRCH-SPRUC	WAPITI	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-27	620741	6108143	MEADOW COMPLEX (ASPEN-BIRCH-ALDER-REED	WAPITI	0	0	2	2	0	0	0	0	0	0	2	UNKNOWN
RAND0	2000-06-27	624200	6108143	MEADOW COMPLEX (ASPEN-BIRCH-MEADOW)	WAPITI	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN
CR20	2000-06-27	625915	6119435	CONFIFER- BLACK SPRUCE (PLATEAU)	WAPITI	0	0	2	2	0	0	0	0	0	0	2	UNKNOWN
RAND0	2000-09-06	628046	6119575	CONFIFER- BLACK SPRUCE (AT EDGE OF OPEN BO	WAPITI	0	0	1	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-09-06	628927	6119427	CONFIFER- BLACK SPRUCE (AT EDGE OF SEDGE P	WAPITI	0	0	2	2	0	0	0	0	0	0	0	UNKNOWN
CR6	2000-06-28	625340	6110050	CONFIFER- BLACK SPRUCE (IDR)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR6	2000-06-28	625340	6110050	CONFIFER- BLACK SPRUCE (IDR)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR31	2000-06-28	623475	6114349	CONFIFER- BLACK SPRUCE (PLATEAU B SP-FIR-PIN	WAPITI	3	0	0	3	3	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-28	626076	6119567	CONFIFER- BLACK SPRUCE (PLATEAU)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR3	2000-06-28	627365	6110632	CONFIFER- PINE (BURN)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR18	2000-06-27	625205	6119425	CONFEROUS-MIXEDWOOD	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR25	2000-06-28	630314	6120086	CONFEROUS-MIXEDWOOD (PLATEAU)	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
RAND0	2000-06-28	627819	6110065	CONFEROUS-MIXEDWOOD (BURN, B SPRUCE S	WAPITI	2	0	0	2	2	0	0	0	0	0	0	UNKNOWN
CA7	2000-06-28	622934	6113802	CONFEROUS-MIXEDWOOD (PINE-SPR-ASPEN-SC	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CA11	2000-06-28	624320	6115776	CONFEROUS-MIXEDWOOD (PINE-SPR-FIR-BIRCH	WAPITI	1	0	0	1	1	0	0	0	0	0	0	UNKNOWN
CR29	2000-06-28	628676	6119306	CONFEROUS-MIXEDWOOD (PLATEAU CONIFER)	WAPITI	2	0	0	2	2	0	0	0	0	0	0	UNKNOWN

CA10	2000-06-28	623787	6148741 CONIFEROUS-MIXEDWOOD (PLATEAU MIXEDWOOD)	YELLOW-RUMPED WARBLER	2	0	0	2	2	0	0	0	0	0	0	0	SONG	UNKNOWN	
RAN00	2000-09-07	626161	6119823 CONIFEROUS-MIXEDWOOD (PLATEAU PINE-FIR-A)	YELLOW-RUMPED WARBLER	0	0	1	1	1	0	0	0	0	0	0	0	CALL	UNKNOWN	
RAN00	2000-06-27	625533	6119241 CONIFEROUS-MIXEDWOOD (PLATEAU W. SPRUCE)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	OFF CR19
RAN00	2000-09-07	626495	6119639 CONIFEROUS-MIXEDWOOD (SLOPE FIR-BIRCH-W)	YELLOW-RUMPED WARBLER	0	0	1	1	1	0	0	0	0	0	0	0	CALL	UNKNOWN	
CA6	2000-06-28	622480	6114150 CONIFEROUS-MIXEDWOOD (SLOPE MIXEDWOOD)	YELLOW-RUMPED WARBLER	0	0	1	1	1	0	0	0	0	0	0	0	CALL	UNKNOWN	
CR22	2000-06-28	630812	6120452 CONIFEROUS-MIXEDWOOD (SLOPE SPR-BIRCH-S)	YELLOW-RUMPED WARBLER	3	0	0	3	3	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR23	2000-06-28	630341	6120410 CONIFEROUS-MIXEDWOOD (SLOPE SPR-PINE-AS)	YELLOW-RUMPED WARBLER	3	0	0	3	3	0	0	0	0	0	0	0	SONG	UNKNOWN	
RAN00	2000-09-07	626330	6119944 CONIFEROUS-MIXEDWOOD (SLOPE SPRUCE-BIR)	YELLOW-RUMPED WARBLER	0	0	1	1	1	0	0	0	0	0	0	0	CALL	UNKNOWN	
CA9	2000-06-28	623661	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	YELLOW-RUMPED WARBLER	2	0	0	2	2	0	0	0	0	0	0	0	SONG	UNKNOWN	SPRUCE ASPEN-PINE-SCATTERED FIR
CA5	2000-06-28	622108	6114827 CONIFEROUS-MIXEDWOOD (SLOPE)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	PINE-SPRUCE BIRCH-ASPEN
CA8	2000-06-28	623661	6114164 CONIFEROUS-MIXEDWOOD (SLOPE)	YELLOW-RUMPED WARBLER	0	0	1	1	1	0	0	0	0	0	0	0	CALL	UNKNOWN	
CR28	2000-06-28	629301	6120194 CONIFEROUS-MIXEDWOOD (SLOPE)	YELLOW-RUMPED WARBLER	3	0	0	3	3	0	0	0	0	0	0	0	SONG	UNKNOWN	
CA1	2000-06-26	628035	6110140 CONIFEROUS-MIXEDWOOD (SP-PINE-ASPEN-MEA)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	
CA12	2000-06-28	624950	6116420 CONIFEROUS-MIXEDWOOD (SP-ASP-MEAD-FIR/P)	YELLOW-RUMPED WARBLER	2	0	0	2	2	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR24	2000-06-28	630266	6120478 CONIFEROUS-MIXEDWOOD (SP-PINE-ASPEN-MEA)	YELLOW-RUMPED WARBLER	3	0	0	3	3	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR10	2000-06-26	623012	6109468 CONIFEROUS-MIXEDWOOD (SPRUCE-FIR-BIRCH)	YELLOW-RUMPED WARBLER	2	0	0	2	2	0	0	0	0	0	0	0	SONG	UNKNOWN	SITE #17, PLATEAU EDGE
CR8	2000-06-26	624105	6109283 CONIFEROUS-MIXEDWOOD (W. SPRUCE-ASPEN-S)	YELLOW-RUMPED WARBLER	2	0	0	2	2	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR7	2000-06-26	624539	6109654 CONIFEROUS-MIXEDWOOD (W. SPRUCE-BIRCH-A)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR4	2000-06-26	626025	6110279 CONIFEROUS-MIXEDWOOD (W. SPRUCE-BIRCH-P)	YELLOW-RUMPED WARBLER	0	0	1	1	1	0	0	0	0	0	0	0	CALL	UNKNOWN	
RAN00	2000-09-07	626272	6119928 CONIFEROUS-MIXEDWOOD (WHITE SPRUCE-BIRCH)	YELLOW-RUMPED WARBLER	2	0	0	2	2	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR27	2000-06-28	629356	6119608 DECIDUOUS BIRCH/ASPEN (SLOPE ASPEN)	YELLOW-RUMPED WARBLER	2	0	0	2	2	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR5	2000-06-26	625626	6110153 DECIDUOUS-MIXEDWOOD (W. SPRUCE-BIRCH-P)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR17	2000-06-27	624734	6119460 MEADOW COMPLEX (ALDER-SCATTERED BIRCH/I)	YELLOW-RUMPED WARBLER	3	0	0	3	3	0	0	0	0	0	0	0	SONG	UNKNOWN	
CA3	2000-06-26	624490	6119485 MEADOW COMPLEX (ASPEN-BIRCH-MEADOW-SC)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	
CA4	2000-06-26	625024	6119517 MEADOW COMPLEX (BIRCH-ASPEN-MEADOW-SC)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	
CR12	2000-06-26	621388	6109093 MEADOW COMPLEX (POPULAR-ASPEN-REED GRASS)	YELLOW-RUMPED WARBLER	2	0	0	2	2	0	0	0	0	0	0	0	SONG	UNKNOWN	
CA2	2000-06-27	626231	6110288 MEADOW COMPLEX (RIPARIAN POPULAR-ALDER-W)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	
RAN00	2000-06-27	625625	6120460 MEADOW COMPLEX (SLOPE BIRCH-ASPEN-MEAD)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	OFF CR21
CR9	2000-06-26	623637	6108787 MEADOW COMPLEX (W. SP-BIRCH-ALDER-REED G)	YELLOW-RUMPED WARBLER	1	0	0	1	1	0	0	0	0	0	0	0	SONG	UNKNOWN	



## APPENDIX 6. VEGETATION DATABASE RECORDS

The following is a sample printout of the vegetation database. The original database is in Access 2 format.













PLOT	Coastal	Ta	Provisional Community Name	Field U	Field UT	Survey X	Q	Slope	Aspect	Topo	Hydro	Environ	Landuse	Soil Drainage	% Small Rk	% Litter	% Wood	% Water	Bare %	T1	C	T2	Hgt	HgtT3	Co S1	HgtS1	C S2	Co S3	CH	Cd	Cd	Other	
YGPT. 25	Organic	Picea mariana/Ledum groenlandicum/Sphagnum	463521	6111027	1999-07-18	20	20	flat	flat	Low (n/a)				Poorly drained	0	10	1	0	0	0	0	0.2 - 5 m	30	1 - 2 m	5	0	60	5	20	70	1 tree height		
YGPT. 26	Liviso lic	Picea glauca/feather moss	463489	6111229	1999-07-18	20	20	Gentle	S	Low level				Moderately well drained	0	50	10	0	0	0	0	0.15 - 20 m	80	0	0	10	0	20	60	1 tree height			
YGPT. 27	Liviso lic	Populus tremuloides/Viburnum edule-Rosa acicularis	463635	6111206	1999-07-18	20	20	Gentle	S	High slope				Moderately well drained	0	40	10	0	0	0	0	0.10 - 15 m	60	2 - 5 m	5	1 - 2 m	5	40	0	50	5	0 tree height	
YGPT. 28	Gleys olic	Salix bebbiana/Calamagrostis canadensis-Equisetum arvense	463846	6111492	1999-07-18	20	20	flat	flat	Low (n/a)				Poorly drained	0	30	15	0	0	0	0	0.5 - 10 m	5	1 - 2 m	5	5 - 10 m	60	20	0	60	10	0 tree height	
YGPT. 29	Organic	Picea mariana/Ledum groenlandicum/Sphagnum	464023	6111132	1999-07-18	20	20	flat	flat	Low level				Poorly drained	0	10	2	0	0	0	0	0.2 - 5 m	30	1 - 2 m	5	0	50	5	20	70	1 tree height		
YGPT. 30	Liviso lic	Populus tremuloides/Viburnum edule-Rosa acicularis	467195	6110501	1999-07-16	20	20	flat	flat	Low level				Somewhat poorly drained	0	80	2	0	0	0	0	0.10 - 15 m	80	2 - 5 m	5	50	5	40	0	20	5	1 tree height	
YGPT. 31	Gleys olic	Calamagrostis canadensis	464550	6111006	1999-07-18	5	5	Gentle	E	Midsi ope				Moderately well drained	0	20	2	0	0	0	0	0	0	0	0	5	0	90	0	0	0 tree height		
YGPT. 32	Regos olic	Rosa acicularis/Calamagrostis canadensis	464646	6110839	1999-07-18	10	10	flat	flat	Low level				Moderately well drained	0	20	15	0	0	0	0	0.2 - 5 m	5	1 - 2 m	5	40	0	70	0	0	0 tree height		
YGPT. 33	Regos olic	Rosa acicularis/Solidago canadensis-Gallium boreale	464624	6110866	1999-07-18	20	20	Gentle	E	Midsi ope				Moderately well drained	0	30	5	0	0	0	0	0.15 - 20 m	80	0.5 - 1 m	20	0	5	0	20	60	1 tree height		
YGPT. 34	Liviso lic	Populus tremuloides-Picea glauca/Cornus canadensis	464479	6110760	1999-07-18	20	20	Gentle	N	Midsi ope				Moderately well drained	0	50	15	0	0	0	0	0.10 - 15 m	70	1 - 2 m	5	50	5	30	0	40	30	0 tree height	
YGPT. 35	Gleys olic	Salix bebbiana-Alnus tenuifolia	464287	6110102	1999-07-18	20	20	flat	flat	Low level				Somewhat poorly drained	0	60	20	0	0	0	0	0.15 - 20 m	10	0	0	5 - 10 m	50	70	0	40	0	0 tree height	
YGPT. 36	Liviso lic	Picea glauca/Cornus canadensis-Linnaea borealis/feather moss	463834	6110124	1999-07-18	20	20	flat	flat	Low level				Somewhat poorly drained	0	30	15	0	0	0	0	0.20 - 25 m	70	0	0	0	20	0	70	50	0 tree height		
YGPT. 37	Liviso lic	Picea glauca/feather moss	463784	6110104	1999-07-18	20	20	flat	flat	Low level				Somewhat poorly drained	0	10	15	0	0	0	0	0.20 - 25 m	80	0	0	0	5	0	30	80	0 tree height		
YGPT. 38	Liviso lic	Picea glauca-Populus tremuloides/Cornus canadensis-Linnaea	463680	6110184	1999-07-18	20	20	flat	flat	Low level				Moderately well drained	0	30	10	0	0	0	0	0.15 - 20 m	50	1 - 2 m	5	0	20	0	40	60	0 tree height		
YGPT. 39	Liviso lic	Picea glauca-Populus tremuloides/Cornus canadensis-Linnaea	463483	6110428	1999-07-18	20	20	flat	flat	Low level				Moderately well drained	0	30	10	0	0	0	0	0.15 - 20 m	80	0	0	1 - 2 m	5	30	0	50	60	0 tree height	
YGPT. 40	Gleys olic	Salix bebbiana/Calamagrostis canadensis-Equisetum arvense	467134	6110296	1999-07-16	20	20	flat	flat	Low level				Poorly drained	0	80	1	0	0	0	0	0.5 - 10 m	5	0	0	5	0	70	5	1 tree height			
YGPT. 41	Liviso lic	Populus tremuloides-Picea glauca/Viburnum edule-Rosa acicularis	463307	6110440	1999-07-18	20	20	flat	flat	Low level				Moderately well drained	0	30	10	0	0	0	0	0.15 - 20 m	80	1 - 2 m	5	1 - 2 m	5	60	0	50	30	0 tree height	
YGPT. 42	Organic	Pinus contorta-Populus tremuloides/Alnus crispa/Linnaea borealis	468071	6113750	1999-08-07	20	20	flat	flat	Low level				Moderately well drained	0	50	10	0	0	0	0	0.10 - 15 m	80	1 - 2 m	5	52 - 5 m	20	30	0	60	40	0 tree height	
YGPT. 43	Gleys olic	Carex utriculata	460387	6111178	1999-08-07	10	10	flat	flat	Low level				Poorly drained	0	40	0	0	0	0	0	0	0	0	0	0	0	20	0	100	0	0	0
YGPT. 44	Gleys olic	Betula pumila-Salix planifolia/Calamagrostis canadensis	460390	6111078	1999-08-07	10	10	flat	flat	Low level				Poorly drained	0	30	0	0	0	0	0	0	0	0	0	5	0	70	0	40	5	1	0
YGPT. 45	Organic	Picea mariana-Larix laricina/Ledum	460377	6111007	1999-08-07	20	20	flat	flat	Low level				Poorly drained	0	50	10	0	0	0	0	0.2 - 5 m	50	<0.5 m	5	0	30	5	30	30	1 tree height		



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lot Code	Pld	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
WP.1	5	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	10	
WP.1	7	<i>Carex aquatilis</i> Wahlenb.	water sedge	7	H	5	
WP.1	6	<i>Carex utriculata</i> Boott	Northwest Territory sedge	7	H	50	
WP.1	4	<i>Potentilla palustris</i> (L.) Scop.	= <i>Comarum palustre</i>	7	H	2	
WP.1	9	<i>Drepanocladus</i> (C. Mill.) G. Roth	drepanocladus moss	8	N	25	
WP.1	8	<i>Sphagnum</i> L.	sphagnum	8	N	15	
WP.1	2	<i>Betula glandulosa</i> Michx.	= <i>Betula nana</i>	5	S2	0.1	
WP.1	3	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5	S2	0.1	
WP.1	1	<i>Salix planifolia</i> Pursh	diamondleaf willow	5	S2	0.1	
WP.10	37	<i>Bryoria</i> Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
WP.10	38	<i>Cetraria</i> Ach.	cetraria lichen	10	E	0.1	
WP.10	39	<i>Cetraria pinastri</i> (Scop.) Gray	= <i>Vulpicida pinastri</i>	10	E	0.1	
WP.10	35	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
WP.10	36	<i>Usnea</i> Dill. ex Adans.	beard lichen		E	0.1	
WP.10	31	<i>Actaea rubra</i> (Ait.) Willd.	red baneberry	7	H	0.1	
WP.10	27	<i>Arnica cordifolia</i> Hook.	heartleaf arnica	7	H	1	
WP.10	30	<i>Athyrium filix-femina</i> (L.) Roth	common ladyfern	7	H	0.1	
WP.10	24	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	30	
WP.10	20	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	5	
WP.10	29	<i>Epilobium angustifolium</i> L.	fireweed	7	H	0.1	
WP.10	23	<i>Gymnocarpium dryopteris</i> (L.) Newman	western oakfern	7	H	15	
WP.10	19	<i>Linnaea borealis</i> L.	twinline	7	H	3	
WP.10	32	<i>Lycopodium annotinum</i> L.	stiff clubmoss		H	1	
WP.10	28	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H	1	
WP.10	25	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7	H	2	
WP.10	21	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	15	
WP.10	26	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7	H	1	
WP.10	40	<i>Senecio triangularis</i> Hook.	arrowleaf groundsel	7	H	0.1	
WP.10	22	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	1	
WP.10	18	<i>Tiarella trifoliata</i> L.	threeleaf foamflower	7	H	10	
WP.10	33	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	30	
WP.10	34	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8	N	0.1	
WP.10	8	<i>Amelanchier alnifolia</i> (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4	S1	0.1	
WP.10	9	<i>Rubus parviflorus</i> Nutt.	thimbleberry		S1	5	
WP.10	11	<i>Sorbus scopulina</i> Greene	Greene mountainash		S1	2	
WP.10	10	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum	4	S1	0.1	
WP.10	12	<i>Lonicera involucrata</i> Banks ex Spreng.	twinline honeysuckle	5	S2	2	
WP.10	15	<i>Ribes lacustre</i> (Pers.) Poir.	prickly currant		S2	0.1	
WP.10	13	<i>Rosa acicularis</i> Lindl.	prickly rose	5	S2	0.1	
WP.10	14	<i>Symphoricarpos albus</i> (L.) Blake	common snowberry		S2	0.1	
WP.10	16	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry		S2	0.1	
WP.10	3	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch		T2	0.1	
WP.10	1	<i>Picea glauca</i> (Moench) Voss	white spruce	2	T2	35 26 cm	
WP.10	2	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine		T2	15 26 cm	
WP.10	5	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3	5	
WP.10	7	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch		T3	0.1	
WP.10	6	<i>Populus tremuloides</i> Michx.	quaking aspen		T3	0.1	
WP.11	37	<i>Bryoria</i> Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
WP.11	38	<i>Cetraria</i> Ach.	cetraria lichen	10	E	0.1	
WP.11	39	<i>Cetraria pinastri</i> (Scop.) Gray	= <i>Vulpicida pinastri</i>	10	E	0.1	
WP.11	35	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
WP.11	36	<i>Usnea</i> Dill. ex Adans.	beard lichen		E	0.1	
WP.11	27	<i>Arnica cordifolia</i> Hook.	heartleaf arnica	7	H	1	
WP.11	30	<i>Athyrium filix-femina</i> (L.) Roth	common ladyfern	7	H	0.1	
WP.11	24	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	5	
WP.11	20	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	15	
WP.11	6	<i>Dryopteris assimilis</i> S. Walker	= <i>Dryopteris expansa</i>		H	0.1	
WP.11	29	<i>Epilobium angustifolium</i> L.	fireweed	7	H	0.1	
WP.11	23	<i>Gymnocarpium dryopteris</i> (L.) Newman	western oakfern	7	H	5	
WP.11	19	<i>Linnaea borealis</i> L.	twinline	7	H	2	

Plot Code	Pld	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
GRWP.11	32	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7	H	0.1	
GRWP.11	28	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H	1	
GRWP.11	5	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7	H	0.1	
GRWP.11	25	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7	H	0.1	
GRWP.11	21	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	10	
GRWP.11	22	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	1	
GRWP.11	18	<i>Tiarella trifoliata</i> L.	threeleaf foamflower	7	H	0.1	
GRWP.11	33	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	30	
GRWP.11	34	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8	N	0.1	
GRWP.11	8	<i>Amelanchier alnifolia</i> (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4	S1	0.1	
GRWP.11	9	<i>Rubus parviflorus</i> Nutt.	thimbleberry		S1	0.1	
GRWP.11	11	<i>Sorbus scopulina</i> Greene	Greene mountainash		S1	0.1	
GRWP.11	10	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum	4	S1	0.1	
GRWP.11	13	<i>Rosa acicularis</i> Lindl.	prickly rose	5	S2	0.1	
GRWP.11	4	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5	S2	20	
GRWP.11	16	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry		S2	10	
GRWP.11	1	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	2	T2	15	34 cm
GRWP.11	3	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch		T2	30	
GRWP.11	1	<i>Picea glauca</i> (Moench) Voss	white spruce	2	T2	10	26 cm
GRWP.11	2	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine		T2	5	26 cm
GRWP.11	2	<i>Populus tremuloides</i> Michx.	quaking aspen		T2	5	25 cm
GRWP.11	5	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3	15	
GRWP.11	3	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	3	T3	0.1	
GRWP.11	6	<i>Populus tremuloides</i> Michx.	quaking aspen		T3	0.1	
GRWP.12	37	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10	E	0.1	
GRWP.12	38	<i>Cetraria</i> Ach.	cetraria lichen	10	E	0.1	
GRWP.12	35	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.12	36	<i>Usnea</i> Dill. ex Adans.	beard lichen		E	0.1	
GRWP.12	5	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	10	
GRWP.12	20	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	10	
GRWP.12	6	<i>Gaultheria hispidula</i> (L.) Muhl. ex Bigelow	creeping snowberry	7	H	1	
GRWP.12	32	<i>Lycopodium annotinum</i> L.	stiff clubmoss		H	1	
GRWP.12	21	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	10	
GRWP.12	3	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	0.1	
GRWP.12	7	<i>Trientalis borealis</i> Raf.	American starflower	7	H	2	
GRWP.12	8	<i>Dicranum fuscescens</i> Turn.	dicranum moss	8	N	0.1	
GRWP.12	33	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	50	
GRWP.12	34	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8	N	20	
GRWP.12	10	<i>Sphagnum</i> L.	sphagnum	8	N	10	
GRWP.12	11	<i>Sorbus scopulina</i> Greene	Greene mountainash		S1	2	
GRWP.12	2	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5	S2	1	
GRWP.12	1	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5	S2	2	
GRWP.12	16	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry		S2	7	
GRWP.12	4	<i>Vaccinium vitis-idaea</i> L.	lingonberry	6	S3	3	
GRWP.12	1	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	2	T2	50	15 cm
GRWP.12	2	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine		T2	20	20 cm
GRWP.12	5	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3	0.1	
GRWP.13	37	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10	E	0.1	
GRWP.13	38	<i>Cetraria</i> Ach.	cetraria lichen	10	E	0.1	
GRWP.13	35	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.13	36	<i>Usnea</i> Dill. ex Adans.	beard lichen		E	0.1	
GRWP.13	1	<i>Carex deweyana</i> Schwein.	Dewey sedge	7	H	5	
GRWP.13	4	<i>Equisetum sylvaticum</i> L.	woodland horsetail	7	H	2	
GRWP.13	18	<i>Gaultheria hispidula</i> (L.) Muhl. ex Bigelow	creeping snowberry	7	H	5	
GRWP.13	3	<i>Rubus chamaemorus</i> L.	cloudberry	7	H	15	
GRWP.13	21	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	2	
GRWP.13	2	<i>Smilacina trifolia</i> (L.) Desf.	= <i>Maianthemum trifolium</i>	7	H	2	
GRWP.13	22	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	1	
GRWP.13	33	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	15	
GRWP.13	6	<i>Polytrichum commune</i> Hedw.	polytrichum moss	8	N	5	



Plot Code	Plc	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
WP.13	34	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8 N		20	
WP.13	5	Sphagnum L.	sphagnum	8 N		40	
WP.13	10	Viburnum edule (Michx.) Raf.	mooseberry viburnum	4 S1		0.1	
WP.13	13	Ledum groenlandicum Oeder	bog Labrador tea	5 S2		10	
WP.13	12	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5 S2		2	
WP.13	16	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	S2		25	
WP.13	26	Vaccinium vitis-idaea L.	lingonberry	6 S3		5	
WP.13	2	Picea mariana (P. Mill.) B.S.P.	black spruce	T2		60	15 cm
WP.14	37	Bryoria Brodo & D. Hawksw.	horsehair lichen	10 E		0.1	
WP.14	38	Evernia Ach.	ring lichen	10 E		0.1	
WP.14	35	Hypogymnia physodes (L.) Nyl.	tube lichen	10 E		0.1	
WP.14	36	Usnea Dill. ex Adans.	beard lichen	E		0.1	
WP.14	24	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H		0.1	
WP.14	20	Cornus canadensis L.	bunchberry dogwood	7 H		15	
WP.14	3	Dryopteris assimilis S. Walker	= Dryopteris expansa	7 H		0.1	
WP.14	19	Linnaea borealis L.	twinflower	7 H		1	
WP.14	32	Lycopodium annotinum L.	stiff clubmoss	H		1	
WP.14	2	Lycopodium annotinum L.	stiff clubmoss	7 H		1	
WP.14	4	Orthilia secunda (L.) House	sidebells wintergreen	7 H		0.1	
WP.14	21	Rubus pedatus Sm.	strawberryleaf raspberry	7 H		10	
WP.14	22	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7 H		0.1	
WP.14	18	Trientalis borealis Raf.	American starflower	7 H		2	
WP.14	33	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		30	
WP.14	8	Amelanchier alnifolia (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4 S1		0.1	
WP.14	10	Sorbus scopulina Greene	Greene mountainash	4 S1		0.1	
WP.14	14	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	S2		1	
WP.14	16	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	S2		50	
WP.14	6	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	2 T2		10	
WP.14	3	Betula neoalaskana Sarg.	Alaska paper birch	T2		5	
WP.14	7	Picea mariana (P. Mill.) B.S.P.	black spruce	2 T2		2	
WP.14	2	Pinus contorta Dougl. ex Loud.	lodgepole pine	T2		50	
WP.14	1	Populus tremuloides Michx.	quaking aspen	2 T2		1	
WP.14	5	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3 T3		5	
WP.15	36	Hypogymnia physodes (L.) Nyl.	tube lichen	10 E		0.1	
WP.15	37	Physcia (Schreber) Michaux	rosette lichen	10 E		0.1	
WP.15	35	Usnea Dill. ex Adans.	beard lichen	10 E		0.1	
WP.15	13	Achillea millefolium L.	common yarrow	7 H		0.1	
WP.15	11	Actaea rubra (Ait.) Willd.	red baneberry	7 H		1	
WP.15	14	Aralia nudicaulis L.	wild sarsaparilla	7 H		20	
WP.15	15	Arnica cordifolia Hook.	heartleaf arnica	7 H		0.1	
WP.15	12	Aster ciliolatus Lindl.	Lindley's aster	7 H		2	
WP.15	19	Aster conspicuus Lindl.	showy aster	7 H		1	
WP.15	9	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H		60	
WP.15	26	Cornus canadensis L.	bunchberry dogwood	7 H		0.1	
WP.15	20	Epilobium angustifolium L.	fireweed	7 H		0.1	
WP.15	16	Galium boreale L.	northern bedstraw	7 H		1	
WP.15	17	Gymnocarpium dryopteris (L.) Newman	western oakfern	7 H		1	
WP.15	32	Hieracium umbellatum L.	narrowleaf hawkweed	7 H		0.1	
WP.15	10	Lathyrus ochroleucus Hook.	cream peavine	7 H		2	
WP.15	25	Linnaea borealis L.	twinflower	7 H		0.1	
WP.15	31	Mertensia paniculata (Ait.) G. Don	tall bluebells	7 H		0.1	
WP.15	22	Mitella nuda L.	naked miterwort	7 H		0.1	
WP.15	21	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7 H		0.1	
WP.15	27	Pyrola elliptica Nutt.	waxflower shinleaf	7 H		0.1	
WP.15	24	Rubus pubescens Raf.	dwarf red blackberry	7 H		1	
WP.15	28	Thalictrum venulosum Trel.	veiny meadowrue	H		0.1	
WP.15	23	Trientalis borealis Raf.	American starflower	7 H		0.1	
WP.15	18	Vicia americana Muhl. ex Willd.	American vetch	7 H		0.1	
WP.15	33	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		0.1	
WP.15	34	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8 N		0.1	

Plot Code	Plot	Scientific Name	Common Name	Stratum S	Stratum Real C	DBH
GRWP.15	4	<i>Alnus tenuifolia</i> Nutt.	= <i>Alnus incana</i> ssp. <i>tenuifolia</i>	4S1	20	
GRWP.15	29	<i>Amelanchier alnifolia</i> (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4S1	0.1	
GRWP.15	6	<i>Ribes hirtellum</i> Michx.	hairystem gooseberry	5S2	0.1	
GRWP.15	8	<i>Ribes lacustre</i> (Pers.) Poir.	prickly currant	S2	0.1	
GRWP.15	7	<i>Rosa acicularis</i> Lindl.	prickly rose	5S2	0.1	
GRWP.15	30	<i>Rubus idaeus</i> L.	American red raspberry	5S2	0.1	
GRWP.15	5	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum	5S2	5	
GRWP.15	2	<i>Picea glauca</i> (Moench) Voss	white spruce	T2	0.1	25 cm
GRWP.15	1	<i>Populus tremuloides</i> Michx.	quaking aspen	2T2	60	15 cm
GRWP.15	3	<i>Betula neolaskana</i> Sarg.	Alaska paper birch	3T3	5	
GRWP.16	37	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10E	0.1	
GRWP.16	38	<i>Cetraria</i> Ach.	cetraria lichen	10E	0.1	
GRWP.16	39	<i>Cetraria pinastri</i> (Scop.) Gray	= <i>Vulpicida pinastri</i>	10E	0.1	
GRWP.16	13	<i>Evernia mesomorpha</i> Nyl.	ring lichen	10E	0.1	
GRWP.16	35	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10E	0.1	
GRWP.16	12	<i>Physcia</i> (Schreber) Michaux	rosette lichen	10E	0.1	
GRWP.16	36	<i>Usnea</i> Dill. ex Adans.	beard lichen	E	0.1	
GRWP.16	4	<i>Aralia nudicaulis</i> L.	wild sarsaparilla	7H	20	
GRWP.16	2	<i>Arnica cordifolia</i> Hook.	heartleaf arnica	H	1	
GRWP.16	8	<i>Aster ciliolatus</i> Lindl.	Lindley's aster	7H	1	
GRWP.16	24	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7H	30	
GRWP.16	20	<i>Cornus canadensis</i> L.	bunchberry dogwood	7H	5	
GRWP.16	9	<i>Galium boreale</i> L.	northern bedstraw	7H	1	
GRWP.16	10	<i>Galium triflorum</i> Michx.	fragrant bedstraw	7H	0.1	
GRWP.16	6	<i>Gymnocarpium dryopteris</i> (L.) Newman	western oakfern	7H	15	
GRWP.16	3	<i>Lathyrus ochroleucus</i> Hook.	cream peavine	H	2	
GRWP.16	19	<i>Linnaea borealis</i> L.	twinline	7H	3	
GRWP.16	7	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7H	1	
GRWP.16	28	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7H	1	
GRWP.16	11	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7H	0.1	
GRWP.16	25	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7H	1	
GRWP.16	5	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7H	1	
GRWP.16	26	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7H	1	
GRWP.16	1	<i>Smilacina racemosa</i> (L.) Desf.	= <i>Maianthemum racemosum</i> ssp. <i>race</i>	7H	0.1	
GRWP.16	22	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7H	0.1	
GRWP.16	18	<i>Tiarella trifoliata</i> L.	threeleaf foamflower	7H	2	
GRWP.16	33	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8N	5	
GRWP.16	34	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8N	5	
GRWP.16	8	<i>Amelanchier alnifolia</i> (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4S1	0.1	
GRWP.16	11	<i>Sorbus scopulina</i> Greene	Greene mountainash	S1	0.1	
GRWP.16	10	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum	4S1	3	
GRWP.16	13	<i>Rosa acicularis</i> Lindl.	prickly rose	5S2	0.1	
GRWP.16	14	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	S2	0.1	
GRWP.16	16	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry	S2	0.1	
GRWP.16	1	<i>Picea glauca</i> (Moench) Voss	white spruce	2T2	25	20 cm
GRWP.16	2	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine	T2	15	26 cm
GRWP.16	3	<i>Populus tremuloides</i> Michx.	quaking aspen	T2	50	15 cm
GRWP.16	5	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3T3	5	
GRWP.16	7	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	T3	0.1	
GRWP.16	6	<i>Populus tremuloides</i> Michx.	quaking aspen	T3	0.1	
GRWP.17	37	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10E	0.1	
GRWP.17	38	<i>Cetraria</i> Ach.	cetraria lichen	10E	0.1	
GRWP.17	35	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10E	0.1	
GRWP.17	36	<i>Usnea</i> Dill. ex Adans.	beard lichen	E	0.1	
GRWP.17	20	<i>Cornus canadensis</i> L.	bunchberry dogwood	7H	10	
GRWP.17	6	<i>Equisetum sylvaticum</i> L.	woodland horsetail	7H	0.1	
GRWP.17	4	<i>Linnaea borealis</i> L.	twinline	7H	2	
GRWP.17	8	<i>Listera cordata</i> (L.) R. Br. ex Ait. f.	heartleaf twayblade	7H	0.1	
GRWP.17	32	<i>Lycopodium annotinum</i> L.	stiff clubmoss	H	5	
GRWP.17	28	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7H	0.1	



Plot Code	PID	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
VP.17	7	Orthilia secunda (L.) House	sidebells wintergreen	7H		0.1	
VP.17	21	Rubus pedatus Sm.	strawberryleaf raspberry	7H		10	
VP.17	5	Trientalis borealis Raf.	American starflower	7H		0.1	
VP.17	3	Hylocomium splendens (Hedw.) Schimp. in B.	splendid feather moss	8N		5	
VP.17	33	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8N		55	
VP.17	34	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8N		5	
VP.17	8	Amelanchier alnifolia (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4S1		0.1	
VP.17	11	Sorbus scopulina Greene	Greene mountainash	S1		0.1	
VP.17	12	Ledum groenlandicum Oeder	bog Labrador tea	5S2		10	
VP.17	1	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5S2		0.1	
VP.17	16	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	S2		5	
VP.17	2	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	T2		50 20 cm	
VP.17	3	Betula neoalaskana Sarg.	Alaska paper birch	T2		15 16 cm	
VP.17	1	Picea glauca (Moench) Voss	white spruce	2T2		10 20 cm	
VP.17	7	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	T3		5	
VP.18	38	Cetraria Ach.	cetraria lichen	10E		0.1	
VP.18	39	Evernia mesomorpha Nyl.	ring lichen	10E		0.1	
VP.18	35	Hypogymnia physodes (L.) Nyl.	tube lichen	10E		0.1	
VP.18	36	Usnea Dill. ex Adans.	beard lichen	E		0.1	
VP.18	31	Actaea rubra (Ait.) Willd.	red baneberry	7H		0.1	
VP.18	27	Aralia nudicaulis L.	wild sarsaparilla	7H		1	
VP.18	30	Athyrium filix-femina (L.) Roth	common ladyfern	7H		0.1	
VP.18	24	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7H		5	
VP.18	20	Cornus canadensis L.	bunchberry dogwood	7H		2	
VP.18	4	Dryopteris assimilis S. Walker	= Dryopteris expansa	7H		0.1	
VP.18	3	Equisetum sylvaticum L.	woodland horsetail	7H		2	
VP.18	6	Galium triflorum Michx.	fragrant bedstraw	7H		0.1	
VP.18	23	Gymnocarpium dryopteris (L.) Newman	western oakfern	7H		10	
VP.18	28	Maianthemum canadense Desf.	Canada beadruby	7H		0.1	
VP.18	8	Mertensia paniculata (Ait.) G. Don	tall bluebells	7H		1	
VP.18	5	Mitella nuda L.	naked miterwort	7H		1	
VP.18	25	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7H		0.1	
VP.18	21	Rubus pedatus Sm.	strawberryleaf raspberry	7H		10	
VP.18	7	Smilacina racemosa (L.) Desf.	= Maianthemum racemosum ssp. race	7H		0.1	
VP.18	22	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7H		0.1	
VP.18	18	Tiarella trifoliata L.	threeleaf foamflower	7H		0.1	
VP.18	2	Trientalis borealis Raf.	American starflower	7H		0.1	
VP.18	33	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8N		15	
VP.18	34	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8N		5	
VP.18	11	Alnus tenuifolia Nutt.	= Alnus incana ssp. tenuifolia	S1		0.1	
VP.18	9	Rubus parviflorus Nutt.	thimbleberry	S1		2	
VP.18	12	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5S2		0.1	
VP.18	15	Oplopanax horridum Miq.	devilsclub	S2		30	
VP.18	13	Ribes lacustre (Pers.) Poir.	prickly currant	5S2		0.1	
VP.18	2	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	T2		25 20 cm	
VP.18	3	Betula neoalaskana Sarg.	Alaska paper birch	T2		5 16 cm	
VP.18	1	Picea glauca (Moench) Voss	white spruce	2T2		45 20 cm	
VP.18	1	Populus tremuloides Michx.	quaking aspen	2T2		5	
VP.18	6	Populus tremuloides Michx.	quaking aspen	T3		0.1	
VP.19	35	Hypogymnia physodes (L.) Nyl.	tube lichen	10E		0.1	
VP.19	38	Parmelia sulcata Taylor	shield lichen	10E		0.1	
VP.19	39	Physcia (Schreber) Michaux	rosette lichen	10E		0.1	
VP.19	36	Usnea Dill. ex Adans.	beard lichen	E		0.1	
VP.19	14	Achillea millefolium L.	common yarrow	7H		0.1	
VP.19	27	Arnica cordifolia Hook.	heartleaf arnica	7H		2	
VP.19	7	Aster ciliolatus Lindl.	Lindley's aster	7H		3	
VP.19	8	Athyrium filix-femina (L.) Roth	common ladyfern	7H		1	
VP.19	30	Athyrium filix-femina (L.) Roth	common ladyfern	7H		1	
VP.19	24	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7H		25	
VP.19	20	Cornus canadensis L.	bunchberry dogwood	7H		15	

Plot Code	Plc	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
GRWP.19	29	<i>Epilobium angustifolium</i> L.	fireweed	7	H	2	
GRWP.19	10	<i>Fragaria virginiana</i> Duchesne	Virginia strawberry	7	H	0.1	
GRWP.19	12	<i>Galium boreale</i> L.	northern bedstraw	7	H	0.1	
GRWP.19	9	<i>Galium triflorum</i> Michx.	fragrant bedstraw	7	H	0.1	
GRWP.19	23	<i>Gymnocarpium dryopteris</i> (L.) Newman	western oakfern	7	H	5	
GRWP.19	2	<i>Heracleum lanatum</i> Michx.	= <i>Heracleum maximum</i>	7	H	5	
GRWP.19	4	<i>Lathyrus ochroleucus</i> Hook.	cream peavine	7	H	2	
GRWP.19	19	<i>Linnaea borealis</i> L.	twinline	7	H	5	
GRWP.19	11	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7	H	0.1	
GRWP.19	28	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H	0.1	
GRWP.19	3	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7	H	5	
GRWP.19	6	<i>Mitella nuda</i> L.	naked miterwort	7	H	0.1	
GRWP.19	25	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7	H	0.1	
GRWP.19	13	<i>Pyrola elliptica</i> Nutt.	waxflower shinleaf	7	H	0.1	
GRWP.19	21	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	1	
GRWP.19	26	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7	H	0.1	
GRWP.19	22	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	0.1	
GRWP.19	5	<i>Thalictrum venulosum</i> Trel.	veiny meadowrue	7	H	15	
GRWP.19	18	<i>Tiarella trifoliata</i> L.	threeleaf foamflower	7	H	0.1	
GRWP.19	1	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum	4	S1	1	
GRWP.19	12	<i>Lonicera involucrata</i> Banks ex Spreng.	twiberry honeysuckle	5	S2	2	
GRWP.19	13	<i>Rosa acicularis</i> Lindl.	prickly rose	5	S2	0.1	
GRWP.19	14	<i>Sambucus pubens</i> Michx.	= <i>Sambucus racemosa</i> var. <i>racemosa</i>		S2	0.1	
GRWP.19	16	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry		S2	0.1	
GRWP.19	1	<i>Picea glauca</i> (Moench) Voss	white spruce	2	T2	35	20 cm
GRWP.19	6	<i>Populus tremuloides</i> Michx.	quaking aspen	2	T2	15	22 cm
GRWP.19	5	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3	0.1	
GRWP.2	30	<i>Bryonia</i> L.	bryony	10	E	0.1	
GRWP.2	33	<i>Cetraria</i> Ach.	cetraria lichen	10	E	0.1	
GRWP.2	34	<i>Evernia</i> Ach.	ring lichen	10	E	0.1	
GRWP.2	28	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.2	29	<i>Usnea</i> Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.2	23	<i>Athyrium filix-femina</i> (L.) Roth	common ladyfern	7	H	0.1	
GRWP.2	20	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	0.1	
GRWP.2	15	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	5	
GRWP.2	18	<i>Epilobium angustifolium</i> L.	fireweed	7	H	0.1	
GRWP.2	19	<i>Equisetum sylvaticum</i> L.	woodland horsetail	7	H	0.1	
GRWP.2	24	<i>Hieracium albiflorum</i> Hook.	white hawkweed	7	H	0.1	
GRWP.2	16	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7	H	5	
GRWP.2	14	<i>Orthilia secunda</i> (L.) House	sidebells wintergreen	7	H	0.1	
GRWP.2	13	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	2	
GRWP.2	17	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	0.1	
GRWP.2	21	<i>Trientalis borealis</i> Raf.	American starflower	7	H	0.1	
GRWP.2	32	<i>Cladina mitis</i> (Sandst.) Hustich	reindeer lichen	8	N	0.1	
GRWP.2	31	<i>Cladonia</i> P. Browne	cup lichen	8	N	0.1	
GRWP.2	26	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	10	
GRWP.2	25	<i>Polytrichum commune</i> Hedw.	polytrichum moss	8	N	5	
GRWP.2	27	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8	N	35	
GRWP.2	6	<i>Prunus pensylvanica</i> L. f.	pin cherry	4	S1	0.1	
GRWP.2	5	<i>Sambucus pubens</i> Michx.	= <i>Sambucus racemosa</i> var. <i>racemosa</i>	4	S1	0.1	
GRWP.2	11	<i>Sorbus scopulina</i> Greene	Greene mountainash	4	S1	0.1	
GRWP.2	12	<i>Betula pumila</i> L.	swamp birch	5	S2	0.1	
GRWP.2	10	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5	S2	15	
GRWP.2	9	<i>Vaccinium cespitosum</i> Michx.	dwarf blueberry	5	S2	0.1	
GRWP.2	7	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5	S2	0.1	
GRWP.2	8	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry	5	S2	15	
GRWP.2	35	<i>Vaccinium vitis-idaea</i> L.	lingonberry	6	S3	15	
GRWP.2	36	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine	2	T2	75	13 cm
GRWP.2	2	<i>Abies lasiocarpa</i> (Hook.) Nutt.	balsam fir	3	T3	2	
GRWP.2	4	<i>Betula neolaskana</i> Sarg.	Alaska paper birch	3	T3	0.1	



lot Code	PIC	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
WP.2	1	Picea mariana (P. Mill.) B.S.P.	black spruce	3	T3	0.1	
WP.20	27	Aralia nudicaulis L.	wild sarsaparilla	7	H	25	
WP.20	31	Aster ciliolatus Lindl.	Lindley's aster	7	H	1	
WP.20	24	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	10	
WP.20	20	Cornus canadensis L.	bunchberry dogwood	7	H	1	
WP.20	29	Epilobium angustifolium L.	fireweed	7	H	10	
WP.20	30	Hieracium umbellatum L.	narrowleaf hawkweed	7	H	0.1	
WP.20	5	Lathyrus ochroleucus Hook.	cream peavine	7	H	0.1	
WP.20	19	Linnaea borealis L.	twinflower	7	H	10	
WP.20	32	Lycopodium annotinum L.	stiff clubmoss		H	0.1	
WP.20	23	Lycopodium obscurum L.	rare clubmoss	7	H	0.1	
WP.20	28	Melampyrum lineare Desr.	narrowleaf cowwheat	7	H	0.1	
WP.20	25	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7	H	2	
WP.20	21	Rubus pedatus Sm.	strawberryleaf raspberry	7	H	15	
WP.20	26	Rubus pubescens Raf.	dwarf red blackberry	7	H	1	
WP.20	22	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7	H	1	
WP.20	18	Trientalis borealis Raf.	American starflower	7	H	0.1	
WP.20	4	Viola palustris L.	marsh violet	7	H	0.1	
WP.20	3	Alnus tenuifolia Nutt.	= Alnus incana ssp. tenuifolia	4	S1	10	
WP.20	8	Amelanchier alnifolia (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4	S1	1	
WP.20	11	Prunus pensylvanica L. f.	pin cherry		S1	2	
WP.20	9	Salix discolor Muhl.	pussy willow		S1	2	
WP.20	12	Ribes hirtellum Michx.	hairystem gooseberry	5	S2	0.1	
WP.20	15	Ribes lacustre (Pers.) Poir.	prickly currant		S2	0.1	
WP.20	13	Rosa acicularis Lindl.	prickly rose	5	S2	5	
WP.20	14	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry		S2	0.1	
WP.20	16	Vaccinium myrtilloides Michx.	velvetleaf huckleberry		S2	5	
WP.20	10	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5	S2	0.1	
WP.20	3	Betula neoalaskana Sarg.	Alaska paper birch		T2	35	15 cm
WP.20	2	Populus balsamifera L.	balsam poplar		T2	5	16 cm
WP.20	6	Populus tremuloides Michx.	quaking aspen	2	T2	10	18 cm
WP.20	5	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3	T3	0.1	
WP.20	7	Betula neoalaskana Sarg.	Alaska paper birch		T3	3	
WP.20	1	Picea glauca (Moench) Voss	white spruce	3	T3	10	
WP.20	1	Populus balsamifera L.	balsam poplar	3	T3	0.1	
WP.20	2	Populus tremuloides Michx.	quaking aspen		T3	2	
WP.21	10	Achillea millefolium L.	common yarrow	7	H	0.1	
WP.21	7	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	20	
WP.21	6	Cornus canadensis L.	bunchberry dogwood	7	H	5	
WP.21	16	Epilobium angustifolium L.	fireweed	7	H	1	
WP.21	8	Equisetum sylvaticum L.	woodland horsetail	7	H	2	
WP.21	15	Galium boreale L.	northern bedstraw	7	H	0.1	
WP.21	9	Hieracium umbellatum L.	narrowleaf hawkweed	7	H	0.1	
WP.21	11	Lathyrus ochroleucus Hook.	cream peavine	7	H	2	
WP.21	12	Maianthemum canadense Desf.	Canada beadruby	7	H	2	
WP.21	17	Mertensia paniculata (Ait.) G. Don	tall bluebells	7	H	0.1	
WP.21	13	Rubus pubescens Raf.	dwarf red blackberry	7	H	1	
WP.21	14	Viola palustris L.	marsh violet	7	H	0.1	
WP.21	3	Rubus parviflorus Nutt.	thimbleberry	4	S1	75	
WP.21	4	Rosa acicularis Lindl.	prickly rose	5	S2	0.1	
WP.21	5	Vaccinium myrtilloides Michx.	velvetleaf huckleberry		S2	10	
WP.21	1	Betula neoalaskana Sarg.	Alaska paper birch	3	T3	0.1	
WP.21	2	Populus tremuloides Michx.	quaking aspen	3	T3	0.1	
WP.22	12	Aralia nudicaulis L.	wild sarsaparilla	7	H	10	
WP.22	14	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	0.1	
WP.22	7	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	50	
WP.22	6	Cornus canadensis L.	bunchberry dogwood	7	H	2	
WP.22	10	Epilobium angustifolium L.	fireweed	7	H	1	
WP.22	13	Gymnocarpium dryopteris (L.) Newman	western oakfern	7	H	2	
WP.22	18	Linnaea borealis L.	twinflower	7	H	0.1	

Plot Code	Pld	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
GRWP.22	16	<i>Lycopodium obscurum</i> L.	rare clubmoss	7	H	0.1	
GRWP.22	8	<i>Maianthemum canadense</i> var. <i>interius</i> Fern.	= <i>Maianthemum canadense</i>	7	H	0.1	
GRWP.22	11	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7	H	0.1	
GRWP.22	15	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7	H	0.1	
GRWP.22	9	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7	H	0.1	
GRWP.22	17	<i>Trientalis borealis</i> Raf.	American starflower	7	H	0.1	
GRWP.22	2	<i>Alnus tenuifolia</i> Nutt.	= <i>Alnus incana</i> ssp. <i>tenuifolia</i>	4	S1	10	
GRWP.22	3	<i>Rubus idaeus</i> L.	American red raspberry	5	S2	0.1	
GRWP.22	5	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry	5	S2	0.1	
GRWP.22	4	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum		S2	0.1	
GRWP.22	1	<i>Picea glauca</i> (Moench) Voss	white spruce	3	T3	0.1	
GRWP.23	37	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10	E	0.1	
GRWP.23	38	<i>Cetraria</i> Ach.	cetraria lichen	10	E	0.1	
GRWP.23	39	<i>Cetraria pinastri</i> (Scop.) Gray	= <i>Vulpicida pinastri</i>	10	E	0.1	
GRWP.23	35	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.23	36	<i>Usnea</i> Dill. ex Adans.	beard lichen		E	0.1	
GRWP.23	27	<i>Aralia nudicaulis</i> L.	wild sarsaparilla	7	H	20	
GRWP.23	30	<i>Athyrium filix-femina</i> (L.) Roth	common ladyfern	7	H	5	
GRWP.23	24	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	10	
GRWP.23	20	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	10	
GRWP.23	29	<i>Epilobium angustifolium</i> L.	fireweed	7	H	2	
GRWP.23	23	<i>Gymnocarpium dryopteris</i> (L.) Newman	western oakfern	7	H	5	
GRWP.23	7	<i>Hieracium umbellatum</i> L.	narrowleaf hawkweed	7	H	0.1	
GRWP.23	4	<i>Lathyrus ochroleucus</i> Hook.	cream peavine	7	H	0.1	
GRWP.23	19	<i>Linnaea borealis</i> L.	twinline	7	H	0.1	
GRWP.23	32	<i>Lycopodium annotinum</i> L.	stiff clubmoss		H	0.1	
GRWP.23	3	<i>Lycopodium complanatum</i> L.	groundcedar	7	H	0.1	
GRWP.23	2	<i>Lycopodium obscurum</i> L.	rare clubmoss	7	H	0.1	
GRWP.23	28	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H	1	
GRWP.23	6	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7	H	0.1	
GRWP.23	25	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7	H	2	
GRWP.23	21	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	5	
GRWP.23	26	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7	H	0.1	
GRWP.23	31	<i>Smilacina racemosa</i> (L.) Desf.	= <i>Maianthemum racemosum</i> ssp. <i>race</i>	7	H	0.1	
GRWP.23	22	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	0.1	
GRWP.23	18	<i>Tiarella trifoliata</i> L.	threeleaf foamflower	7	H	10	
GRWP.23	5	<i>Viola palustris</i> L.	marsh violet	7	H	0.1	
GRWP.23	8	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	10	
GRWP.23	33	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	30	
GRWP.23	9	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8	N	10	
GRWP.23	34	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8	N	0.1	
GRWP.23	1	<i>Rubus parviflorus</i> Nutt.	thimbleberry	4	S1	5	
GRWP.23	9	<i>Salix discolor</i> Muhl.	pussy willow		S1	2	
GRWP.23	11	<i>Sorbus scopulina</i> Greene	Greene mountainash		S1	0.1	
GRWP.23	10	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum	4	S1	0.1	
GRWP.23	15	<i>Ribes lacustre</i> (Pers.) Poir.	prickly currant		S2	0.1	
GRWP.23	12	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5	S2	10	
GRWP.23	16	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry		S2	40	
GRWP.23	3	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch		T2	70 15 cm	
GRWP.23	1	<i>Picea glauca</i> (Moench) Voss	white spruce	2	T2	10 15 cm	
GRWP.23	2	<i>Populus tremuloides</i> Michx.	quaking aspen		T2	5 12 cm	
GRWP.23	5	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3	15	
GRWP.23	7	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch		T3	0.1	
GRWP.23	6	<i>Picea glauca</i> (Moench) Voss	white spruce		T3	0.1	
GRWP.23	6	<i>Populus tremuloides</i> Michx.	quaking aspen		T3	0.1	
GRWP.24	31	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10	E	0.1	
GRWP.24	32	<i>Evernia mesomorpha</i> Nyl.	ring lichen	10	E	0.1	
GRWP.24	33	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.24	34	<i>Usnea</i> Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.24	11	<i>Athyrium filix-femina</i> (L.) Roth	common ladyfern	7	H	0.1	



Plot Code	PI	Scientific Name	Common Name	Stratum	Stratum	Real C	DBH
WP.24	12	<i>Cornus canadensis</i> L.	bunchberry dogwood	7H		20	
WP.24	13	<i>Dryopteris assimilis</i> S. Walker	= <i>Dryopteris expansa</i>	7H		0.1	
WP.24	14	<i>Equisetum sylvaticum</i> L.	woodland horsetail	7H		0.1	
WP.24	15	<i>Gaultheria hispida</i> (L.) Muhl. ex Bigelow	creeping snowberry	7H		0.1	
WP.24	16	<i>Linnaea borealis</i> L.	twinline	7H		0.1	
WP.24	17	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7H		0.1	
WP.24	18	<i>Rubus chamaemorus</i> L.	cloudberry	7H		1	
WP.24	35	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7H		25	
WP.24	19	<i>Smilacina trifolia</i> (L.) Desf.	= <i>Maianthemum trifolium</i>	7H		0.1	
WP.24	20	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7H		0.1	
WP.24	21	<i>Trientalis borealis</i> Raf.	American starflower	7H		2	
WP.24	28	<i>Cladonia rangiferina</i> (L.) Nyl.	greengreen reindeer lichen	8N		0.1	
WP.24	23	<i>Dicranum fuscescens</i> Turn.	dicranum moss	8N		1	
WP.24	29	<i>Dicranum undulatum</i> Brid.	undulate dicranum moss	8N		0.1	
WP.24	30	<i>Ichmadophila ericetorum</i> (L.) Zahlbr.	peppermint drop lichen	8N		0.1	
WP.24	24	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8N		50	
WP.24	25	<i>Polytrichum commune</i> Hedw.	polytrichum moss	8N		5	
WP.24	26	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8N		20	
WP.24	27	<i>Sphagnum</i> L.	sphagnum	8N		0.1	
WP.24	6	<i>Salix discolor</i> Muhl.	pussy willow	4S1		0.1	
WP.24	7	<i>Sorbus scopulina</i> Greene	Greene mountainash	4S1		0.1	
WP.24	8	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5S2		0.1	
WP.24	9	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5S2		0.1	
WP.24	10	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry	S2		1	
WP.24	22	<i>Vaccinium vitis-idaea</i> L.	lingonberry	6S3		1	
WP.24	5	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	2T2		5	18 cm
WP.24	4	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch	T2		5	14 cm
WP.24	1	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	2T2		75	16 cm
WP.24	3	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3T3		5	
WP.25	31	<i>Bryoria Brodia &amp; D. Hawksw.</i>	horsehair lichen	10E		0.1	
WP.25	32	<i>Evernia mesomorpha</i> Nyl.	ring lichen	10E		0.1	
WP.25	33	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10E		0.1	
WP.25	34	<i>Usnea</i> Dill. ex Adans.	beard lichen	10E		0.1	
WP.25	11	<i>Aster ciliolatus</i> Lindl.	Lindley's aster	7H		0.1	
WP.25	12	<i>Cornus canadensis</i> L.	bunchberry dogwood	7H		5	
WP.25	13	<i>Dryopteris assimilis</i> S. Walker	= <i>Dryopteris expansa</i>	7H		0.1	
WP.25	15	<i>Gaultheria hispida</i> (L.) Muhl. ex Bigelow	creeping snowberry	7H		5	
WP.25	17	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7H		0.1	
WP.25	1	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7H		5	
WP.25	19	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7H		5	
WP.25	20	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7H		0.1	
WP.25	28	<i>Cladonia</i> P. Browne	cup lichen	8N		0.1	
WP.25	23	<i>Dicranum fuscescens</i> Turn.	dicranum moss	8N		1	
WP.25	29	<i>Dicranum undulatum</i> Brid.	undulate dicranum moss	8N		0.1	
WP.25	25	<i>Hylacomium splendens</i> (Hedw.) Schimp. in B.	splendid feather moss	8N		15	
WP.25	2	<i>Peltigera aphthosa</i> (L.) Willd.	felt lichen	8N		0.1	
WP.25	24	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8N		30	
WP.25	26	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8N		20	
WP.25	7	<i>Sorbus scopulina</i> Greene	Greene mountainash	4S1		0.1	
WP.25	8	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5S2		0.1	
WP.25	9	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5S2		0.1	
WP.25	10	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry	S2		1	
WP.25	22	<i>Vaccinium vitis-idaea</i> L.	lingonberry	6S3		0.1	
WP.25	5	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	2T2		3	18 cm
WP.25	4	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch	T2		2	14 cm
WP.25	1	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	2T2		80	16 cm
WP.25	2	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine	T2		2	
WP.25	3	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3T3		0.1	
WP.26	23	<i>Bryoria Brodia &amp; D. Hawksw.</i>	horsehair lichen	10E		0.1	
WP.26	24	<i>Cetraria</i> Ach.	cetraria lichen	10E		0.1	

Plot Code	Pld	Scientific Name	Common Name	Stratum S	Stratum Real C	DBH
GRWP.26	25	Evernia mesomorpha Nyl.	ring lichen	E	0.1	
GRWP.26	26	Hypogymnia physodes (L.) Nyl.	tube lichen	10 E	0.1	
GRWP.26	27	Usnea Dill. ex Adans.	beard lichen	10 E	0.1	
GRWP.26	10	Carex aquatilis Wahlenb.	water sedge	7 H	5	
GRWP.26	12	Carex deweyana Schwein.	Dewey sedge	7 H	2	
GRWP.26	11	Carex pauciflora Lightf.	star sedge	7 H	10	
GRWP.26	13	Carex paupercula Michx.	= Carex magellanica ssp. magellanica	7 H	2	
GRWP.26	15	Eriophorum brachyantherum Trautv. & C.A. M	northland cottonsedge	7 H	0.1	
GRWP.26	14	Eriophorum vaginatum L.	tussock cottongrass	7 H	0.1	
GRWP.26	16	Gaultheria hispida (L.) Muhl. ex Bigelow	creeping snowberry	7 H	3	
GRWP.26	17	Rubus chamaemorus L.	cloudberry	7 H	30	
GRWP.26	18	Smilacina trifolia (L.) Desf.	= Maianthemum trifolium	7 H	1	
GRWP.26	19	Vaccinium oxycoccos L.	small cranberry	7 H	2	
GRWP.26	21	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N	5	
GRWP.26	22	Sphagnum L.	sphagnum	8 N	75	
GRWP.26	6	Chamaedaphne calyculata (L.) Moench	leatherleaf	5 S2	25	
GRWP.26	7	Ledum groenlandicum Oeder	bog Labrador tea	S2	45	
GRWP.26	8	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	S2	0.1	
GRWP.26	9	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2	5	
GRWP.26	20	Vaccinium vitis-idaea L.	lingonberry	6 S3	2	
GRWP.26	1	Picea mariana (P. Mill.) B.S.P.	black spruce	2 T2	25 10 cm	
GRWP.26	4	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3 T3	0.1	
GRWP.26	5	Betula neoalaskana Sarg.	Alaska paper birch	T3	0.1	
GRWP.26	3	Picea mariana (P. Mill.) B.S.P.	black spruce	T3	5	
GRWP.26	2	Pinus contorta Dougl. ex Loud.	lodgepole pine	3 T3	0.1	
GRWP.27	2	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H	2	
GRWP.27	12	Carex deweyana Schwein.	Dewey sedge	7 H	20	
GRWP.27	11	Carex pauciflora Lightf.	star sedge	7 H	0.1	
GRWP.27	13	Carex paupercula Michx.	= Carex magellanica ssp. magellanica	7 H	5	
GRWP.27	14	Eriophorum vaginatum L.	tussock cottongrass	7 H	0.1	
GRWP.27	4	Juncus filiformis L.	thread rush	7 H	20	
GRWP.27	17	Rubus chamaemorus L.	cloudberry	7 H	5	
GRWP.27	18	Smilacina trifolia (L.) Desf.	= Maianthemum trifolium	7 H	2	
GRWP.27	3	Campyllum stellatum (Hedw.) C. Jens.	star campyllum moss	8 N	15	
GRWP.27	27	Sphagnum L.	sphagnum	8 N	45	
GRWP.27	1	Ledum groenlandicum Oeder	bog Labrador tea	5 S2	5	
GRWP.27	9	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2	5	
GRWP.27	20	Vaccinium vitis-idaea L.	lingonberry	6 S3	2	
GRWP.28	23	Bryoria Brodo & D. Hawksw.	horsehair lichen	10 E	0.1	
GRWP.28	24	Cetraria Ach.	cetraria lichen	10 E	0.1	
GRWP.28	25	Evernia mesomorpha Nyl.	ring lichen	E	0.1	
GRWP.28	26	Hypogymnia physodes (L.) Nyl.	tube lichen	10 E	0.1	
GRWP.28	27	Usnea Dill. ex Adans.	beard lichen	10 E	0.1	
GRWP.28	12	Carex deweyana Schwein.	Dewey sedge	7 H	15	
GRWP.28	11	Carex pauciflora Lightf.	star sedge	7 H	15	
GRWP.28	13	Carex paupercula Michx.	= Carex magellanica ssp. magellanica	7 H	5	
GRWP.28	14	Eriophorum vaginatum L.	tussock cottongrass	7 H	0.1	
GRWP.28	16	Gaultheria hispida (L.) Muhl. ex Bigelow	creeping snowberry	7 H	1	
GRWP.28	17	Rubus chamaemorus L.	cloudberry	7 H	30	
GRWP.28	18	Smilacina trifolia (L.) Desf.	= Maianthemum trifolium	7 H	2	
GRWP.28	1	Aulacomnium palustre (Hedw.) Schwaegr.	aulacomnium moss	8 N	1	
GRWP.28	21	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N	10	
GRWP.28	22	Sphagnum L.	sphagnum	8 N	30	
GRWP.28	2	Sphagnum magellanicum Brid.	Magellan's sphagnum	8 N	20	
GRWP.28	7	Ledum groenlandicum Oeder	bog Labrador tea	S2	30	
GRWP.28	8	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	S2	0.1	
GRWP.28	9	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2	20	
GRWP.28	20	Vaccinium vitis-idaea L.	lingonberry	6 S3	10	
GRWP.28	1	Picea mariana (P. Mill.) B.S.P.	black spruce	2 T2	25 8 cm	
GRWP.28	3	Picea mariana (P. Mill.) B.S.P.	black spruce	T3	5	



ot Code	PIC	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
NP.29	26	Bryoria Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
NP.29	27	Parmelia sulcata Taylor	shield lichen	10	E	0.1	
NP.29	11	Achillea millefolium L.	common yarrow	7	H	0.1	
NP.29	12	Actaea rubra (Ait.) Willd.	red baneberry	7	H	0.1	
NP.29	13	Aster ciliolatus Lindl.	Lindley's aster	7	H	0.1	
NP.29	21	Aster puniceus L.	purplestem aster	7	H	0.1	
NP.29	14	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	20	
NP.29	25	Bromus ciliatus L.	fringed brome	7	H	0.1	
NP.29	15	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	60	
NP.29	23	Carex aenea Fern.	bronze sedge	7	H	0.1	
NP.29	16	Dryopteris carthusiana (Vill.) H.P. Fuchs	spinulose woodfern	7	H	0.1	
NP.29	17	Epilobium angustifolium L.	fireweed	7	H	0.1	
NP.29	18	Equisetum sylvaticum L.	woodland horsetail	7	H	5	
NP.29	19	Gymnocarpium dryopteris (L.) Newman	western oakfern	7	H	15	
NP.29	22	Heracleum lanatum Michx.	= Heracleum maximum	7	H	5	
NP.29	20	Hieracium umbellatum L.	narrowleaf hawkweed	7	H	0.1	
NP.29	24	Urtica dioica L.	stinging nettle	7	H	0.1	
NP.29	2	Alnus tenuifolia Nutt.	= Alnus incana ssp. tenuifolia	4	S1	5	
NP.29	4	Salix bebbiana Sarg.	Bebb willow	4	S1	0.1	
NP.29	3	Sambucus pubens Michx.	= Sambucus racemosa var. racemosa		S1	5	
NP.29	5	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5	S2	0.1	
NP.29	10	Oplopanax horridus Miq.	devilsclub	5	S2	1	
NP.29	6	Ribes hirtellum Michx.	hairystem gooseberry		S2	0.1	
NP.29	7	Rubus idaeus L.	American red raspberry	5	S2	25	
NP.29	9	Salix arbusculoides Anderss.	littletree willow		S2	0.1	
NP.29	1	Betula neoalaskana Sarg.	Alaska paper birch	2	T2	5	10 cm
NP.3	30	Bryonia L.	bryony	10	E	0.1	
NP.3	33	Cetraria Ach.	cetraria lichen	10	E	0.1	
NP.3	34	Evernia Ach.	ring lichen	10	E	0.1	
NP.3	28	Hypogymnia physodes (L.) Nyl.	tube lichen	10	E	0.1	
NP.3	29	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
NP.3	23	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	0.1	
NP.3	1	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	0.1	
NP.3	20	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	0.1	
NP.3	15	Cornus canadensis L.	bunchberry dogwood	7	H	20	
NP.3	2	Dryopteris carthusiana (Vill.) H.P. Fuchs	spinulose woodfern		H	0.1	
NP.3	18	Epilobium angustifolium L.	fireweed	7	H	0.1	
NP.3	19	Equisetum sylvaticum L.	woodland horsetail	7	H	0.1	
NP.3	24	Hieracium albiflorum Hook.	white hawkweed	7	H	0.1	
NP.3	16	Lycopodium annotinum L.	stiff clubmoss	7	H	5	
NP.3	13	Rubus pedatus Sm.	strawberryleaf raspberry	7	H	2	
NP.3	17	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7	H	0.1	
NP.3	26	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8	N	15	
NP.3	25	Polytrichum commune Hedw.	polytrichum moss	8	N	5	
NP.3	27	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8	N	30	
NP.3	5	Sambucus pubens Michx.	= Sambucus racemosa var. racemosa	4	S1	0.1	
NP.3	11	Sorbus scopulina Greene	Greene mountainash	4	S1	0.1	
NP.3	10	Ledum groenlandicum Oeder	bog Labrador tea	5	S2	30	
NP.3	7	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5	S2	0.1	
NP.3	8	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5	S2	5	
NP.3	35	Vaccinium vitis-idaea L.	lingonberry	6	S3	0.1	
NP.3	36	Pinus contorta Dougl. ex Loud.	lodgepole pine	2	T2	75	13 cm
NP.3	2	Abies lasiocarpa (Hook.) Nutt.	balsam fir	3	T3	0.1	
NP.3	4	Betula neoalaskana Sarg.	Alaska paper birch	3	T3	0.1	
NP.3	1	Picea mariana (P. Mill.) B.S.P.	black spruce	3	T3	2	
NP.30	27	Bryoria Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
NP.30	28	Parmelia sulcata Taylor	shield lichen	10	E	0.1	
NP.30	16	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	5	
NP.30	18	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	70	
NP.30	21	Epilobium angustifolium L.	fireweed	7	H	0.1	

Plot Code	Pic	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
GRWP.30	22	Equisetum sylvaticum L.	woodland horsetail	7	H	10	
GRWP.30	23	Gymnocarpium dryopteris (L.) Newman	western oakfern	7	H	15	
GRWP.30	30	Heracleum lanatum Michx.	= Heracleum maximum	7	H	0.1	
GRWP.30	29	Mertensia paniculata (Ait.) G. Don	tall bluebells	7	H	0.1	
GRWP.30	26	Urtica dioica L.	stinging nettle	7	H	0.1	
GRWP.30	4	Sambucus pubens Michx.	= Sambucus racemosa var. racemosa	4	S1	0.1	
GRWP.30	9	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5	S2	0.1	
GRWP.30	11	Rubus idaeus L.	American red raspberry	5	S2	25	
GRWP.31	11	Evernia mesomorpha Nyl.	ring lichen	10	E	0.1	
GRWP.31	25	Evernia mesomorpha Nyl.	ring lichen	10	E	0.1	
GRWP.31	12	Parmelia sulcata Taylor	shield lichen	10	E	0.1	
GRWP.31	24	Physcia (Schreber) Michaux	rosette lichen	10	E	0.1	
GRWP.31	23	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.31	18	Actaea rubra (Ait.) Willd.	red baneberry	7	H	0.1	
GRWP.31	19	Aster ciliolatus Lindl.	Lindley's aster		H	0.1	
GRWP.31	4	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	5	
GRWP.31	5	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	70	
GRWP.31	20	Dryopteris assimilis S. Walker	= Dryopteris expansa	7	H	0.1	
GRWP.31	6	Epilobium angustifolium L.	fireweed	7	H	0.1	
GRWP.31	7	Equisetum sylvaticum L.	woodland horsetail	7	H	10	
GRWP.31	8	Gymnocarpium dryopteris (L.) Newman	western oakfern	7	H	15	
GRWP.31	13	Heracleum lanatum Michx.	= Heracleum maximum	7	H	3	
GRWP.31	22	Thalictrum venulosum Trel.	veiny meadowrue	7	H	0.1	
GRWP.31	10	Urtica dioica L.	stinging nettle	7	H	0.1	
GRWP.31	1	Alnus tenuifolia Nutt.	= Alnus incana ssp. tenuifolia	4	S1	5	
GRWP.31	15	Sorbus scopulina Greene	Greene mountainash	4	S1	15	
GRWP.31	2	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5	S2	3	
GRWP.31	17	Ribes hirtellum Michx.	hairystem gooseberry	5	S2	0.1	
GRWP.31	3	Rubus idaeus L.	American red raspberry	5	S2	10	
GRWP.31	16	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5	S2	2	
GRWP.31	14	Betula neoalaskana Sarg.	Alaska paper birch	2	T2	15	13 cm
GRWP.32	23	Evernia mesomorpha Nyl.	ring lichen	10	E	0.1	
GRWP.32	18	Evernia mesomorpha Nyl.	ring lichen	10	E	0.1	
GRWP.32	19	Parmelia sulcata Taylor	shield lichen	10	E	0.1	
GRWP.32	22	Physcia (Schreber) Michaux	rosette lichen	10	E	0.1	
GRWP.32	21	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.32	9	Actaea rubra (Ait.) Willd.	red baneberry	7	H	0.1	
GRWP.32	1	Aster ciliolatus Lindl.	Lindley's aster	7	H	0.1	
GRWP.32	10	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	5	
GRWP.32	11	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	70	
GRWP.32	12	Dryopteris assimilis S. Walker	= Dryopteris expansa	7	H	0.1	
GRWP.32	13	Epilobium angustifolium L.	fireweed	7	H	0.1	
GRWP.32	14	Equisetum sylvaticum L.	woodland horsetail	7	H	10	
GRWP.32	15	Gymnocarpium dryopteris (L.) Newman	western oakfern	7	H	15	
GRWP.32	16	Heracleum lanatum Michx.	= Heracleum maximum	7	H	3	
GRWP.32	20	Thalictrum venulosum Trel.	veiny meadowrue	7	H	0.1	
GRWP.32	17	Urtica dioica L.	stinging nettle	7	H	0.1	
GRWP.32	3	Alnus tenuifolia Nutt.	= Alnus incana ssp. tenuifolia	4	S1	15	
GRWP.32	4	Sorbus scopulina Greene	Greene mountainash	4	S1	5	
GRWP.32	5	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5	S2	0.1	
GRWP.32	24	Oplopanax horridus Miq.	devilsclub	5	S2	5	
GRWP.32	6	Ribes hirtellum Michx.	hairystem gooseberry	5	S2	1	
GRWP.32	7	Rubus idaeus L.	American red raspberry	5	S2	30	
GRWP.32	8	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5	S2	1	
GRWP.32	2	Betula neoalaskana Sarg.	Alaska paper birch	2	T2	50	15 cm
GRWP.33	5	Achillea sibirica Ledeb.	Siberian yarrow		H	0.1	
GRWP.33	10	Agrostis scabra Willd.	rough bentgrass	7	H	0.1	
GRWP.33	13	Beckmannia syzigachne (Steud.) Fern.	American sloughgrass	7	H	0.1	
GRWP.33	6	Bidens cernua L.	nodding beggartick	7	H	0.1	
GRWP.33	2	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	20	



Plot Code	PIC	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
WP.33	4	<i>Caltha leptosepala</i> DC.	white marshmarigold	7	H	0.1	
WP.33	11	<i>Carex diandra</i> Schrank	lesser panicled sedge	7	H	0.1	
WP.33	9	<i>Cerastium nutans</i> Raf.	nodding chickweed	7	H	0.1	
WP.33	7	<i>Epilobium glandulosum</i> Lehm.	= <i>Epilobium ciliatum</i> ssp. <i>glandulosum</i>	7	H	0.1	
WP.33	12	<i>Impatiens noli-tangere</i> L.	western touchmenot	7	H	0.1	
WP.33	3	<i>Potentilla palustris</i> (L.) Scop.	= <i>Comarum palustre</i>	7	H	0.1	
WP.33	8	<i>Ranunculus gmelinii</i> DC.	Gmelin's buttercup	7	H	0.1	
WP.33	1	<i>Scirpus microcarpus</i> J. & K. Presl	panicled bulrush	7	H	50	
WP.34	27	<i>Actaea rubra</i> (Ait.) Willd.	red baneberry	7	H	2	
WP.34	31	<i>Aralia nudicaulis</i> L.	wild sarsaparilla	7	H	20	
WP.34	40	<i>Arnica cordifolia</i> Hook.	heartleaf arnica	7	H	0.1	
WP.34	10	<i>Aster ciliolatus</i> Lindl.	Lindley's aster	7	H	2	
WP.34	32	<i>Aster conspicuus</i> Lindl.	showy aster	7	H	1	
WP.34	30	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	30	
WP.34	14	<i>Epilobium angustifolium</i> L.	fireweed	7	H	2	
WP.34	33	<i>Galium boreale</i> L.	northern bedstraw	7	H	0.1	
WP.34	16	<i>Gymnocarpium dryopteris</i> (L.) Newman	western oakfern	7	H	2	
WP.34	17	<i>Heracleum lanatum</i> Michx.	= <i>Heracleum maximum</i>	7	H	1	
WP.34	34	<i>Lathyrus ochroleucus</i> Hook.	cream peavine	7	H	0.1	
WP.34	35	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H	2	
WP.34	36	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7	H	0.1	
WP.34	38	<i>Smilacina racemosa</i> (L.) Desf.	= <i>Maianthemum racemosum</i> ssp. <i>race</i>	7	H	1	
WP.34	18	<i>Thalictrum venulosum</i> Trel.	veiny meadowrue	7	H	5	
WP.34	39	<i>Vicia americana</i> Muhl. ex Willd.	American vetch	7	H	0.1	
WP.34	2	<i>Alnus crispa</i> (Ait.) Pursh	= <i>Alnus viridis</i> ssp. <i>crispa</i>	4	S1	50	
WP.34	4	<i>Lonicera involucrata</i> Banks ex Spreng.	twinberry honeysuckle	5	S2	5	
WP.34	6	<i>Ribes hirtellum</i> Michx.	hairystem gooseberry	5	S2	0.1	
WP.34	7	<i>Rubus idaeus</i> L.	American red raspberry	5	S2	5	
WP.34	25	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch	2	T2	1	12 cm
WP.34	1	<i>Populus tremuloides</i> Michx.	quaking aspen	2	T2	80	18 cm
WP.34	26	<i>Populus tremuloides</i> Michx.	quaking aspen	3	T3	3	
WP.35	34	<i>Caloplaca</i> Th. Fr.	orange lichen	10	E	0.1	
WP.35	33	<i>Physcia</i> (Schreber) Michaux	rosette lichen	10	E	0.1	
WP.35	8	<i>Actaea rubra</i> (Ait.) Willd.	red baneberry	7	H	1	
WP.35	9	<i>Aralia nudicaulis</i> L.	wild sarsaparilla	7	H	20	
WP.35	10	<i>Aster ciliolatus</i> Lindl.	Lindley's aster	7	H	2	
WP.35	11	<i>Aster conspicuus</i> Lindl.	showy aster	7	H	1	
WP.35	15	<i>Athyrium filix-femina</i> (L.) Roth	common ladyfern	7	H	0.1	
WP.35	12	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	50	
WP.35	31	<i>Delphinium glaucum</i> S. Wats.	Sierra larkspur	7	H	0.1	
WP.35	30	<i>Disporum trachycarpum</i> (S. Wats.) Benth. &	roughfruit fairybells	7	H	0.1	
WP.35	13	<i>Epilobium angustifolium</i> L.	fireweed	7	H	0.1	
WP.35	14	<i>Galium boreale</i> L.	northern bedstraw	7	H	1	
WP.35	32	<i>Gentiana amarella</i> L. auct. p.p.	= <i>Gentianella amarella</i> ssp. <i>acuta</i>	7	H	0.1	
WP.35	16	<i>Heracleum lanatum</i> Michx.	= <i>Heracleum maximum</i>	7	H	0.1	
WP.35	27	<i>Hieracium umbellatum</i> L.	narrowleaf hawkweed	7	H	0.1	
WP.35	17	<i>Lathyrus ochroleucus</i> Hook.	cream peavine	7	H	2	
WP.35	18	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H	0.1	
WP.35	19	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7	H	2	
WP.35	28	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7	H	2	
WP.35	20	<i>Smilacina racemosa</i> (L.) Desf.	= <i>Maianthemum racemosum</i> ssp. <i>race</i>	7	H	1	
WP.35	21	<i>Thalictrum venulosum</i> Trel.	veiny meadowrue	7	H	10	
WP.35	29	<i>Trientalis borealis</i> Raf.	American starflower	7	H	0.1	
WP.35	22	<i>Vicia americana</i> Muhl. ex Willd.	American vetch	7	H	0.1	
WP.35	4	<i>Alnus crispa</i> (Ait.) Pursh	= <i>Alnus viridis</i> ssp. <i>crispa</i>	4	S1	5	
WP.35	25	<i>Amelanchier alnifolia</i> (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4	S1	0	
WP.35	5	<i>Lonicera involucrata</i> Banks ex Spreng.	twinberry honeysuckle	5	S2	10	
WP.35	6	<i>Ribes hirtellum</i> Michx.	hairystem gooseberry	5	S2	1	
WP.35	26	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum	5	S2	2	
WP.35	23	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch	2	T2	0.1	12 cm

Plot Code	Pic	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
GRWP.35	24	<i>Populus balsamifera</i> L.	balsam poplar	2	T2	0.1	
GRWP.35	2	<i>Populus tremuloides</i> Michx.	quaking aspen	2	T2	75	18 cm
GRWP.36	8	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	0.1	
GRWP.36	2	<i>Carex aquatilis</i> Wahlenb.	water sedge	7	H	40	
GRWP.36	3	<i>Carex paupercula</i> Michx.	= <i>Carex magellanica</i> ssp. <i>magellanica</i>	7	H	10	
GRWP.36	1	<i>Juncus filiformis</i> L.	thread rush	7	H	50	
GRWP.36	4	<i>Smilacina trifolia</i> (L.) Desf.	= <i>Maianthemum trifolium</i>	7	H	1	
GRWP.36	6	<i>Campylium stellatum</i> (Hedw.) C. Jens.	star campylium moss	8	N	5	
GRWP.36	5	<i>Sphagnum</i> L.	sphagnum	8	N	50	
GRWP.36	7	<i>Sphagnum magellanicum</i> Brid.	Magellan's sphagnum	8	N	5	
GRWP.37	10	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10	E	0.1	
GRWP.37	12	<i>Cetraria</i> Ach.	cetraria lichen	10	E	0.1	
GRWP.37	13	<i>Cetraria pinastri</i> (Scop.) Gray	= <i>Vulpicida pinastri</i>	10	E	0.1	
GRWP.37	11	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.37	9	<i>Usnea</i> Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.37	20	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	20	
GRWP.37	15	<i>Epilobium angustifolium</i> L.	fireweed	7	H	0.1	
GRWP.37	14	<i>Equisetum sylvaticum</i> L.	woodland horsetail	7	H	0.1	
GRWP.37	19	<i>Linnaea borealis</i> L.	twinline	7	H	3	
GRWP.37	32	<i>Lycopodium annotinum</i> L.	stiff clubmoss		H	2	
GRWP.37	21	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	10	
GRWP.37	18	<i>Trientalis borealis</i> Raf.	American starflower	7	H	1	
GRWP.37	8	<i>Cladonia mitis</i> (Sandst.) Hustich	reindeer lichen	8	N	0.1	
GRWP.37	6	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	50	
GRWP.37	7	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8	N	20	
GRWP.37	14	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea		S2	3	
GRWP.37	15	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry		S2	2	
GRWP.37	16	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry		S2	10	
GRWP.37	1	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	2	T2	30	30 cm
GRWP.37	7	<i>Betula neolaskana</i> Sarg.	Alaska paper birch	2	T2	3	14 cm
GRWP.37	2	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce		T2	30	16 cm
GRWP.37	3	<i>Populus tremuloides</i> Michx.	quaking aspen		T2	2	14 cm
GRWP.37	4	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3	15	
GRWP.37	5	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	3	T3	15	
GRWP.38	19	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	35	
GRWP.38	20	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	15	
GRWP.38	31	<i>Dryopteris carthusiana</i> (Vill.) H.P. Fuchs	spinulose woodfern	7	H	0.1	
GRWP.38	28	<i>Epilobium angustifolium</i> L.	fireweed	7	H	0.1	
GRWP.38	22	<i>Linnaea borealis</i> L.	twinline	7	H	2	
GRWP.38	24	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7	H	2	
GRWP.38	23	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H	2	
GRWP.38	32	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7	H	0.1	
GRWP.38	26	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7	H	2	
GRWP.38	29	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	15	
GRWP.38	30	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7	H	1	
GRWP.38	21	<i>Streptopus amplexifolius</i> (L.) DC.	clasp leaf twisted stalk	7	H	0.1	
GRWP.38	25	<i>Trientalis borealis</i> Raf.	American starflower	7	H	0.1	
GRWP.38	16	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	10	
GRWP.38	18	<i>Polytrichum commune</i> Hedw.	polytrichum moss	8	N	5	
GRWP.38	17	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss		N	5	
GRWP.38	13	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5	S2	0.1	
GRWP.38	12	<i>Lonicera involucrata</i> Banks ex Spreng.	twinline honeysuckle		S2	1	
GRWP.38	10	<i>Ribes glandulosum</i> Grauer	skunk currant		S2	1	
GRWP.38	9	<i>Rosa acicularis</i> Lindl.	prickly rose	5	S2	0.1	
GRWP.38	11	<i>Rubus idaeus</i> L.	American red raspberry	5	S2	1	
GRWP.38	15	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5	S2	0.1	
GRWP.38	14	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry	5	S2	10	
GRWP.38	27	<i>Vaccinium vitis-idaea</i> L.	lingonberry	6	S3	0.1	
GRWP.38	1	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	2	T2	15	18 cm
GRWP.38	2	<i>Betula neolaskana</i> Sarg.	Alaska paper birch		T2	15	10 cm



Plot Code	Pic	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
WP.38	5	<i>Picea glauca</i> (Moench) Voss	white spruce	2	T2		2 18 cm
WP.38	4	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce		T2		20 16 cm
WP.38	3	<i>Populus tremuloides</i> Michx.	quaking aspen		T2		20 18 cm
WP.38	6	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3		30
WP.38	7	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch		T3		0.1
WP.38	8	<i>Populus tremuloides</i> Michx.	quaking aspen		T3		0.1
WP.39	18	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H		35
WP.39	19	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H		15
WP.39	20	<i>Dryopteris carthusiana</i> (Vill.) H.P. Fuchs	spinulose woodfern	7	H		1
WP.39	21	<i>Epilobium angustifolium</i> L.	fireweed	7	H		1
WP.39	38	<i>Equisetum sylvaticum</i> L.	woodland horsetail	7	H		0.1
WP.39	36	<i>Gymnocarpium dryopteris</i> (L.) Newman	western oakfern	7	H		10
WP.39	37	<i>Hieracium umbellatum</i> L.	narrowleaf hawkweed	7	H		0.1
WP.39	22	<i>Linnaea borealis</i> L.	twinline	7	H		3
WP.39	24	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H		1
WP.39	25	<i>Mertensia paniculata</i> (Ait.) G. Don	tall bluebells	7	H		3
WP.39	26	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7	H		1
WP.39	27	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H		5
WP.39	28	<i>Rubus pubescens</i> Raf.	dwarf red blackberry	7	H		2
WP.39	30	<i>Trientalis borealis</i> Raf.	American starflower	7	H		0.1
WP.39	31	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N		5
WP.39	32	<i>Polytrichum commune</i> Hedw.	polytrichum moss	8	N		10
WP.39	35	<i>Prunus pensylvanica</i> L. f.	pin cherry	4	S1		0.1
WP.39	34	<i>Sambucus pubens</i> Michx.	= <i>Sambucus racemosa</i> var. <i>racemosa</i>	4	S1		0.1
WP.39	12	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5	S2		0.1
WP.39	13	<i>Rosa acicularis</i> Lindl.	prickly rose	5	S2		0.1
WP.39	15	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5	S2		0.1
WP.39	16	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry	5	S2		15
WP.39	14	<i>Viburnum edule</i> (Michx.) Raf.	mooseberry viburnum	5	S2		0.1
WP.39	9	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	2	T2		15 12 cm
WP.39	10	<i>Picea glauca</i> (Moench) Voss	white spruce	2	T2		10 15 cm
WP.39	4	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	2	T2		5 14 cm
WP.39	33	<i>Populus tremuloides</i> Michx.	quaking aspen	2	T2		20 13 cm
WP.39	11	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3		30
WP.39	2	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch	3	T3		0.1
WP.39	6	<i>Populus tremuloides</i> Michx.	quaking aspen	3	T3		0.1
WP.4	10	<i>Carex limosa</i> L.	mud sedge	7	H		0.1
WP.4	7	<i>Carex pauciflora</i> Lightf.	star sedge	7	H		30
WP.4	8	<i>Eriophorum vaginatum</i> L.	tussock cottongrass		H		5
WP.4	9	<i>Smilacina trifolia</i> (L.) Desf.	= <i>Maianthemum trifolium</i>	7	H		10
WP.4	13	<i>Cladina mitis</i> (Sandst.) Hustich	reindeer lichen	8	N		0.1
WP.4	11	<i>Sphagnum fuscum</i> (Schimp.) Klinggr.	sphagnum	8	N		50
WP.4	12	<i>Sphagnum</i> L.	sphagnum	8	N		10
WP.4	5	<i>Andromeda polifolia</i> L.	bog rosemary		S2		15
WP.4	6	<i>Betula pumila</i> L.	swamp birch		S2		3
WP.4	4	<i>Chamaedaphne calyculata</i> (L.) Moench	leatherleaf		S2		15
WP.4	3	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5	S2		10
WP.4	2	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce		T3		5
WP.4	1	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine	3	T3		20
WP.40	27	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10	E		0.1
WP.40	28	<i>Evernia mesomorpha</i> Nyl.	ring lichen	10	E		0.1
WP.40	29	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E		0.1
WP.40	30	<i>Parmelia sulcata</i> Taylor	shield lichen	10	E		0.1
WP.40	31	<i>Usnea</i> Dill. ex Adans.	beard lichen	10	E		0.1
WP.40	12	<i>Athyrium filix-femina</i> (L.) Roth	common ladyfern	7	H		0.1
WP.40	8	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H		5
WP.40	9	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H		10
WP.40	10	<i>Dryopteris assimilis</i> S. Walker	= <i>Dryopteris expansa</i>	7	H		3
WP.40	11	<i>Epilobium angustifolium</i> L.	fireweed	7	H		0.1
WP.40	13	<i>Gymnocarpium dryopteris</i> (L.) Newman	western oakfern	7	H		10

Plot Code	Pld	Scientific Name	Common Name	Stratum S	StratumReal C	DBH
GRWP.40	14	Hieracium umbellatum L.	narrowleaf hawkweed	7H	0.1	
GRWP.40	15	Linnaea borealis L.	twinline	7H	3	
GRWP.40	17	Lycopodium annotinum L.	stiff clubmoss	7H	3	
GRWP.40	16	Maianthemum canadense Desf.	Canada beadruby	7H	3	
GRWP.40	18	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7H	1	
GRWP.40	19	Rubus pedatus Sm.	strawberryleaf raspberry	7H	15	
GRWP.40	20	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7H	0.1	
GRWP.40	21	Trientalis borealis Raf.	American starflower	7H	2	
GRWP.40	22	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8N	40	
GRWP.40	23	Polytrichum commune Hedw.	polytrichum moss	8N	5	
GRWP.40	26	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8N	30	
GRWP.40	2	Sambucus pubens Michx.	= Sambucus racemosa var. racemosa	4S1	0.1	
GRWP.40	1	Sorbus scopulina Greene	Greene mountainash	4S1	0.1	
GRWP.40	3	Ledum groenlandicum Oeder	bog Labrador tea	5S2	10	
GRWP.40	24	Ribes glandulosum Grauer	skunk currant	5S2	0.1	
GRWP.40	4	Ribes hirtellum Michx.	hairystem gooseberry	5S2	0.1	
GRWP.40	5	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5S2	0.1	
GRWP.40	6	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5S2	10	
GRWP.40	7	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5S2	0.1	
GRWP.40	25	Vaccinium vitis-idaea L.	lingonberry	6S3	0.1	
GRWP.40	35	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	T2	10 17 cm	
GRWP.40	37	Betula neoalaskana Sarg.	Alaska paper birch	2T2	0.1 15 cm	
GRWP.40	33	Picea mariana (P. Mill.) B.S.P.	black spruce	T2	5 14 cm	
GRWP.40	32	Pinus contorta Dougl. ex Loud.	lodgepole pine	2T2	25 28 cm	
GRWP.40	36	Populus tremuloides Michx.	quaking aspen	2T2	10 22 cm	
GRWP.40	38	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3T3	35	
GRWP.40	39	Betula neoalaskana Sarg.	Alaska paper birch	3T3	2	
GRWP.41	34	Bryoria Brodo & D. Hawksw.	horsehair lichen	10E	0.1	
GRWP.41	35	Evernia mesomorpha Nyl.	ring lichen	10E	0.1	
GRWP.41	36	Hypogymnia physodes (L.) Nyl.	tube lichen	10E	0.1	
GRWP.41	37	Parmelia sulcata Taylor	shield lichen	10E	0.1	
GRWP.41	38	Usnea Dill. ex Adans.	beard lichen	10E	0.1	
GRWP.41	18	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7H	5	
GRWP.41	19	Cornus canadensis L.	bunchberry dogwood	7H	10	
GRWP.41	20	Dryopteris assimilis S. Walker	= Dryopteris expansa	7H	1	
GRWP.41	21	Epilobium angustifolium L.	fireweed	7H	0.1	
GRWP.41	17	Equisetum sylvaticum L.	woodland horsetail	7H	0.1	
GRWP.41	22	Gymnocarpium dryopteris (L.) Newman	western oakfern	7H	0.1	
GRWP.41	24	Linnaea borealis L.	twinline	7H	2	
GRWP.41	25	Lycopodium annotinum L.	stiff clubmoss	7H	0.1	
GRWP.41	23	Lycopodium complanatum L.	groundcedar	7H	0.1	
GRWP.41	28	Rubus pedatus Sm.	strawberryleaf raspberry	7H	15	
GRWP.41	30	Trientalis borealis Raf.	American starflower	7H	0.1	
GRWP.41	44	Cladonia mitis (Sandst.) Hustich	reindeer lichen	8N	0.1	
GRWP.41	45	Flavocetraria nivalis (L.) Karnefelt & Thell		8N	0.1	
GRWP.41	32	Hylocomium splendens (Hedw.) Schimp. in B.	splendid feather moss	8N	20	
GRWP.41	41	Peltigera aphthosa (L.) Willd.	felt lichen	8N	1	
GRWP.41	31	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8N	20	
GRWP.41	33	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8N	20	
GRWP.41	8	Prunus pensylvanica L. f.	pin cherry	4S1	0.1	
GRWP.41	40	Salix bebbiana Sarg.	Bebb willow	4S1	0.1	
GRWP.41	9	Sorbus scopulina Greene	Greene mountainash	4S1	0.1	
GRWP.41	10	Ledum groenlandicum Oeder	bog Labrador tea	5S2	10	
GRWP.41	11	Ribes lacustre (Pers.) Poir.	prickly currant	5S2	0.1	
GRWP.41	13	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5S2	10	
GRWP.41	14	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5S2	20	
GRWP.41	15	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5S2	0.1	
GRWP.41	16	Vaccinium vitis-idaea L.	lingonberry	6S3	5	
GRWP.41	1	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	2T2	10 14 cm	
GRWP.41	3	Betula neoalaskana Sarg.	Alaska paper birch	2T2	10 7 cm	



ot Code	Pic	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
NP.41	39	<i>Picea glauca</i> (Moench) Voss	white spruce	2	T2	30	14 cm
NP.41	2	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	2	T2	2	5 cm
NP.41	5	<i>Populus tremuloides</i> Michx.	quaking aspen	2	T2	3	7 cm
NP.41	6	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3	35	
NP.41	4	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine	3	T3	0.1	
NP.42	34	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10	E	0.1	
NP.42	45	<i>Cetraria pinastri</i> (Scop.) Gray	= <i>Vulpicida pinastri</i>	10	E	0.1	
NP.42	35	<i>Evernia mesomorpha</i> Nyl.	ring lichen	10	E	0.1	
NP.42	36	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
NP.42	37	<i>Parmelia sulcata</i> Taylor	shield lichen	10	E	0.1	
NP.42	38	<i>Usnea</i> Dill. ex Adans.	beard lichen	10	E	0.1	
NP.42	41	<i>Athyrium filix-femina</i> (L.) Roth	common ladyfern	7	H	0.1	
NP.42	17	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	0.1	
NP.42	18	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	15	
NP.42	19	<i>Dryopteris assimilis</i> S. Walker	= <i>Dryopteris expansa</i>	7	H	1	
NP.42	20	<i>Epilobium angustifolium</i> L.	fireweed	7	H	0.1	
NP.42	23	<i>Linnaea borealis</i> L.	twinflower	7	H	1	
NP.42	24	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7	H	1	
NP.42	26	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	5	
NP.42	42	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	0.1	
NP.42	27	<i>Trientalis borealis</i> Raf.	American starflower	7	H	0.1	
NP.42	29	<i>Cladina mitis</i> (Sandst.) Hustich	reindeer lichen	8	N	10	
NP.42	43	<i>Cladina rangiferina</i> (L.) Nyl.	greycree reindeer lichen	8	N	5	
NP.42	44	<i>Dicranum undulatum</i> Brid.	undulate dicranum moss	8	N	0.1	
NP.42	30	<i>Hylocomium splendens</i> (Hedw.) Schimp. in B.	splendid feather moss	8	N	25	
NP.42	31	<i>Peltigera aphthosa</i> (L.) Willd.	felt lichen	8	N	1	
NP.42	32	<i>Pleurozium schreberi</i> (Brid.) Mitt.	Schreber's big red stem moss	8	N	20	
NP.42	33	<i>Ptilium crista-castrensis</i> (Hedw.) De Not.	knights plume moss	8	N	20	
NP.42	9	<i>Salix arbusculoides</i> Anderss.	littletree willow	4	S1	0.1	
NP.42	10	<i>Sorbus scopulina</i> Greene	Greene mountainash	4	S1	5	
NP.42	11	<i>Ledum groenlandicum</i> Oeder	bog Labrador tea	5	S2	5	
NP.42	12	<i>Lonicera involucrata</i> Banks ex Spreng.	twinberry honeysuckle	5	S2	0.1	
NP.42	13	<i>Vaccinium membranaceum</i> Dougl. ex Torr.	blue huckleberry	5	S2	5	
NP.42	14	<i>Vaccinium myrtilloides</i> Michx.	velvetleaf huckleberry	5	S2	20	
NP.42	16	<i>Vaccinium vitis-idaea</i> L.	lingonberry	6	S3	5	
NP.42	1	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	2	T2	5	14 cm
NP.42	2	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch	2	T2	15	13 cm
NP.42	3	<i>Picea glauca</i> (Moench) Voss	white spruce	2	T2	20	10 cm
NP.42	4	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	2	T2	5	10 cm
NP.42	5	<i>Populus tremuloides</i> Michx.	quaking aspen	2	T2	5	20 cm
NP.42	6	<i>Abies lasiocarpa</i> (Hook.) Nutt.	subalpine fir	3	T3	0.1	
NP.42	39	<i>Betula neoalaskana</i> Sarg.	Alaska paper birch	3	T3	5	
NP.42	40	<i>Picea mariana</i> (P. Mill.) B.S.P.	black spruce	3	T3	30	
NP.42	7	<i>Pinus contorta</i> Dougl. ex Loud.	lodgepole pine	3	T3	0.1	
NP.43	31	<i>Bryoria Brodo &amp; D. Hawksw.</i>	horsehair lichen	10	E	0.1	
NP.43	33	<i>Evernia mesomorpha</i> Nyl.	ring lichen	10	E	0.1	
NP.43	34	<i>Hypogymnia physodes</i> (L.) Nyl.	tube lichen	10	E	0.1	
NP.43	36	<i>Usnea</i> Dill. ex Adans.	beard lichen	10	E	0.1	
NP.43	14	<i>Calamagrostis canadensis</i> (Michx.) Beauv.	bluejoint	7	H	1	
NP.43	15	<i>Cornus canadensis</i> L.	bunchberry dogwood	7	H	20	
NP.43	16	<i>Epilobium angustifolium</i> L.	fireweed	7	H	0.1	
NP.43	13	<i>Hieracium umbellatum</i> L.	narrowleaf hawkweed	7	H	0.1	
NP.43	17	<i>Lathyrus ochroleucus</i> Hook.	cream peavine	7	H	0.1	
NP.43	18	<i>Linnaea borealis</i> L.	twinflower	7	H	3	
NP.43	19	<i>Lycopodium annotinum</i> L.	stiff clubmoss	7	H	2	
NP.43	21	<i>Maianthemum canadense</i> Desf.	Canada beadruby	7	H	2	
NP.43	22	<i>Petasites palmatus</i> (Ait.) Gray	= <i>Petasites frigidus</i> var. <i>palmatus</i>	7	H	1	
NP.43	23	<i>Rubus pedatus</i> Sm.	strawberryleaf raspberry	7	H	15	
NP.43	25	<i>Streptopus amplexifolius</i> (L.) DC.	claspleaf twistedstalk	7	H	0.1	
NP.43	26	<i>Trientalis borealis</i> Raf.	American starflower	7	H	0.1	

Plot Code	Plc	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
GRWP.43	28	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		40	
GRWP.43	30	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8 N		20	
GRWP.43	7	Alnus crispa (Ait.) Pursh	= Alnus viridis ssp. crispa	4 S1		0.1	
GRWP.43	8	Sorbus scopulina Greene	Greene mountainash	4 S1		1	
GRWP.43	9	Ledum groenlandicum Oeder	bog Labrador tea	5 S2		10	
GRWP.43	10	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5 S2		0.1	
GRWP.43	11	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5 S2		5	
GRWP.43	12	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2		20	
GRWP.43	20	Vaccinium vitis-idaea L.	lingonberry	6 S3		1	
GRWP.43	37	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	2 T2		10 16 cm	
GRWP.43	2	Betula neolaskana Sarg.	Alaska paper birch	2 T2		5 13 cm	
GRWP.43	4	Picea mariana (P. Mill.) B.S.P.	black spruce	2 T2		10 16 cm	
GRWP.43	38	Pinus contorta Dougl. ex Loud.	lodgepole pine	T2		40 20 cm	
GRWP.43	5	Populus tremuloides Michx.	quaking aspen	2 T2		10 14 cm	
GRWP.43	6	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3 T3		50	
GRWP.44	35	Bryoria Brodo & D. Hawksw.	horsehair lichen	10 E		0.1	
GRWP.44	40	Cetraria pinastri (Scop.) Gray	= Vulpicida pinastri	10 E		0.1	
GRWP.44	36	Evernia mesomorpha Nyl.	ring lichen	10 E		0.1	
GRWP.44	37	Hypogymnia physodes (L.) Nyl.	tube lichen	10 E		0.1	
GRWP.44	38	Parmelia sulcata Taylor	shield lichen	10 E		0.1	
GRWP.44	39	Usnea Dill. ex Adans.	beard lichen	10 E		0.1	
GRWP.44	17	Aralia nudicaulis L.	wild sarsaparilla	7 H		5	
GRWP.44	18	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H		1	
GRWP.44	19	Cornus canadensis L.	bunchberry dogwood	7 H		15	
GRWP.44	21	Epilobium angustifolium L.	fireweed	7 H		0.1	
GRWP.44	20	Gymnocarpium dryopteris (L.) Newman	western oakfern	7 H		1	
GRWP.44	22	Linnaea borealis L.	twinline	7 H		3	
GRWP.44	23	Lycopodium annotinum L.	stiff clubmoss	7 H		2	
GRWP.44	41	Lycopodium complanatum L.	ground cedar	7 H		0.1	
GRWP.44	42	Maianthemum canadense Desf.	Canada beadruby	7 H		1	
GRWP.44	43	Orthilia secunda (L.) House	sidebells wintergreen	7 H		1	
GRWP.44	24	Rubus pedatus Sm.	strawberry leaf raspberry	7 H		10	
GRWP.44	44	Rubus pubescens Raf.	dwarf red blackberry	7 H		1	
GRWP.44	25	Streptopus amplexifolius (L.) DC.	claspleaf twisted stalk	7 H		0.1	
GRWP.44	26	Trientalis borealis Raf.	American starflower	7 H		0.1	
GRWP.44	31	Hylacomium splendens (Hedw.) Schimp. in B.	splendid feather moss	8 N		25	
GRWP.44	33	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		10	
GRWP.44	45	Polytrichum commune Hedw.	polytrichum moss	8 N		5	
GRWP.44	34	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8 N		20	
GRWP.44	10	Salix arbusculoides Anderss.	littletree willow	4 S1		0.1	
GRWP.44	11	Sorbus scopulina Greene	Greene mountainash	4 S1		2	
GRWP.44	13	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5 S2		0.1	
GRWP.44	12	Ribes lacustre (Pers.) Poir.	prickly currant	5 S2		0.1	
GRWP.44	14	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5 S2		0.1	
GRWP.44	15	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2		0.1	
GRWP.44	1	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	2 T2		10 16 cm	
GRWP.44	2	Betula neolaskana Sarg.	Alaska paper birch	2 T2		10 10 cm	
GRWP.44	3	Picea glauca (Moench) Voss	white spruce	2 T2		5 10 cm	
GRWP.44	4	Picea mariana (P. Mill.) B.S.P.	black spruce	2 T2		5 10 cm	
GRWP.44	5	Populus tremuloides Michx.	quaking aspen	2 T2		5 20 cm	
GRWP.44	6	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3 T3		80	
GRWP.45	34	Bryoria Brodo & D. Hawksw.	horsehair lichen	10 E		0.1	
GRWP.45	39	Cetraria Ach.	cetraria lichen	10 E		0.1	
GRWP.45	35	Evernia mesomorpha Nyl.	ring lichen	10 E		0.1	
GRWP.45	36	Hypogymnia physodes (L.) Nyl.	tube lichen	10 E		0.1	
GRWP.45	37	Parmelia sulcata Taylor	shield lichen	10 E		0.1	
GRWP.45	38	Usnea Dill. ex Adans.	beard lichen	10 E		0.1	
GRWP.45	17	Aralia nudicaulis L.	wild sarsaparilla	7 H		15	
GRWP.45	20	Aster ciliolatus Lindl.	Lindley's aster	7 H		0.1	
GRWP.45	18	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H		5	



Plot Code	Plc	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
RWP.45	19	Cornus canadensis L.	bunchberry dogwood	7 H		15	
RWP.45	21	Epilobium angustifolium L.	fireweed	7 H		0.1	
RWP.45	22	Gymnocarpium dryopteris (L.) Newman	western oakfern	7 H		3	
RWP.45	24	Linnaea borealis L.	twinline	7 H		1	
RWP.45	25	Lycopodium annotinum L.	stiff clubmoss	7 H		1	
RWP.45	23	Lycopodium complanatum L.	groundcedar	7 H		0.1	
RWP.45	26	Maianthemum canadense Desf.	Canada beadruby	7 H		0.1	
RWP.45	27	Mertensia paniculata (Ait.) G. Don	tall bluebells	7 H		0.1	
RWP.45	28	Rubus pedatus Sm.	strawberryleaf raspberry	7 H		10	
RWP.45	29	Rubus pubescens Raf.	dwarf red blackberry	7 H		1	
RWP.45	32	Viola palustris L.	marsh violet	7 H		0.1	
RWP.45	31	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		10	
RWP.45	33	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8 N		10	
RWP.45	8	Salix arbusculoides Anderss.	littletree willow	4 S1		0.1	
RWP.45	9	Sorbus scopulina Greene	Greene mountainash	4 S1		1	
RWP.45	10	Lonicera involucrata Banks ex Spreng.	twinline honeysuckle	5 S2		2	
RWP.45	16	Oplopanax horridus Miq.	devilsclub	5 S2		0.1	
RWP.45	11	Ribes lacustre (Pers.) Poir.	prickly currant	5 S2		2	
RWP.45	12	Rosa acicularis Lindl.	prickly rose	5 S2		0.1	
RWP.45	13	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5 S2		0.1	
RWP.45	14	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2		5	
RWP.45	15	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5 S2		5	
RWP.45	1	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	2 T2		20 25 cm	
RWP.45	3	Betula neoalaskana Sarg.	Alaska paper birch	2 T2		10 16 cm	
RWP.45	4	Pinus contorta Dougl. ex Loud.	lodgepole pine	2 T2		5 20 cm	
RWP.45	5	Populus tremuloides Michx.	quaking aspen	2 T2		5 18 cm	
RWP.45	6	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3 T3		40	
RWP.46	35	Bryoria Brodo & D. Hawksw.	horsehair lichen	10 E		0.1	
RWP.46	38	Cetraria Ach.	cetraria lichen	10 E		0.1	
RWP.46	36	Evernia mesomorpha Nyl.	ring lichen	10 E		0.1	
RWP.46	37	Hypogymnia physodes (L.) Nyl.	tube lichen	10 E		0.1	
RWP.46	39	Usnea Dill. ex Adans.	beard lichen	10 E		0.1	
RWP.46	17	Actaea rubra (Ait.) Willd.	red baneberry	7 H		3	
RWP.46	40	Aralia nudicaulis L.	wild sarsaparilla	7 H		2	
RWP.46	18	Athyrium filix-femina (L.) Roth	common ladyfern	7 H		0.1	
RWP.46	19	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H		5	
RWP.46	20	Cornus canadensis L.	bunchberry dogwood	7 H		25	
RWP.46	21	Dryopteris assimilis S. Walker	= Dryopteris expansa	7 H		0.1	
RWP.46	22	Epilobium angustifolium L.	fireweed	7 H		0.1	
RWP.46	24	Equisetum sylvaticum L.	woodland horsetail	7 H		1	
RWP.46	23	Gymnocarpium dryopteris (L.) Newman	western oakfern	7 H		10	
RWP.46	25	Linnaea borealis L.	twinline	7 H		1	
RWP.46	26	Lycopodium annotinum L.	stiff clubmoss	7 H		1	
RWP.46	27	Mertensia paniculata (Ait.) G. Don	tall bluebells	7 H		0.1	
RWP.46	28	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7 H		1	
RWP.46	45	Phegopteris connectilis (Michx.) Watt	long beechfern	7 H		5	
RWP.46	29	Rubus pedatus Sm.	strawberryleaf raspberry	7 H		5	
RWP.46	31	Rubus pubescens Raf.	dwarf red blackberry	7 H		3	
RWP.46	41	Smilacina racemosa (L.) Desf.	= Maianthemum racemosum ssp. race	7 H		0.1	
RWP.46	42	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7 H		1	
RWP.46	30	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7 H		1	
RWP.46	43	Tiarella trifoliata L.	threeleaf foamflower	7 H		1	
RWP.46	44	Tiarella unifoliata Hook.	= Tiarella trifoliata var. unifoliata	7 H		1	
RWP.46	32	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		15	
RWP.46	34	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8 N		5	
RWP.46	10	Sorbus scopulina Greene	Greene mountainash	4 S1		0.1	
RWP.46	11	Lonicera involucrata Banks ex Spreng.	twinline honeysuckle	5 S2		0.1	
RWP.46	14	Oplopanax horridus Miq.	devilsclub	5 S2		1	
RWP.46	12	Ribes lacustre (Pers.) Poir.	prickly currant	5 S2		0.1	
RWP.46	13	Ribes triste Pallas	red currant	5 S2		0.1	

Plot Code	Pld	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
GRWP.46	16	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5	S2	2	
GRWP.46	2	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	2	T2	35	22 cm
GRWP.46	4	Betula neoalaskana Sarg.	Alaska paper birch	2	T2	5	18 cm
GRWP.46	3	Picea glauca (Moench) Voss	white spruce	2	T2	5	20 cm
GRWP.46	5	Pinus contorta Dougl. ex Loud.	lodgepole pine	2	T2	0.1	22 cm
GRWP.46	6	Populus tremuloides Michx.	quaking aspen	2	T2	5	18 cm
GRWP.46	7	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3	T3	30	
GRWP.47	35	Bryoria Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
GRWP.47	52	Cetraria Ach.	cetraria lichen	10	E	0.1	
GRWP.47	36	Evernia mesomorpha Nyl.	ring lichen	10	E	0.1	
GRWP.47	37	Hypogymnia physodes (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.47	39	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.47	17	Achillea millefolium L.	common yarrow	7	H	0.1	
GRWP.47	40	Actaea rubra (Ait.) Willd.	red baneberry	7	H	0.1	
GRWP.47	41	Aralia nudicaulis L.	wild sarsaparilla	7	H	5	
GRWP.47	42	Aster ciliolatus Lindl.	Lindley's aster	7	H	0.1	
GRWP.47	18	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	5	
GRWP.47	19	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	30	
GRWP.47	20	Cornus canadensis L.	bunchberry dogwood	7	H	20	
GRWP.47	22	Epilobium angustifolium L.	fireweed	7	H	2	
GRWP.47	29	Equisetum sylvaticum L.	woodland horsetail	7	H	1	
GRWP.47	43	Galium boreale L.	northern bedstraw	7	H	0.1	
GRWP.47	23	Gymnocarpium dryopteris (L.) Newman	western oakfern	7	H	5	
GRWP.47	24	Hieracium umbellatum L.	narrowleaf hawkweed	7	H	0.1	
GRWP.47	50	Lathyrus ochroleucus Hook.	cream peavine	7	H	2	
GRWP.47	25	Linnaea borealis L.	twinflower	7	H	2	
GRWP.47	26	Lycopodium complanatum L.	groundcedar	7	H	0.1	
GRWP.47	27	Maianthemum canadense Desf.	Canada beadruby	7	H	1	
GRWP.47	44	Mitella nuda L.	naked miterwort	7	H	0.1	
GRWP.47	28	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7	H	2	
GRWP.47	49	Pyrola elliptica Nutt.	waxflower shinleaf	7	H	2	
GRWP.47	51	Rubus pubescens Raf.	dwarf red blackberry	7	H	10	
GRWP.47	45	Schizachne purpurascens (Torr.) Swallen	false melic	7	H	1	
GRWP.47	30	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7	H	1	
GRWP.47	48	Thalictrum venulosum Trel.	veiny meadowrue	7	H	0.1	
GRWP.47	47	Tiarella trifoliata L.	threeleaf foamflower	7	H	0.1	
GRWP.47	46	Tiarella unifoliata Hook.	= Tiarella trifoliata var. unifoliata	7	H	2	
GRWP.47	31	Trientalis borealis Raf.	American starflower	7	H	0.1	
GRWP.47	32	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8	N	15	
GRWP.47	34	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8	N	5	
GRWP.47	9	Alnus crispa (Ait.) Pursh	= Alnus viridis ssp. crispa	4	S1	0.1	
GRWP.47	10	Sorbus scopulina Greene	Greene mountainash	4	S1	1	
GRWP.47	11	Ledum groenlandicum Oeder	bog Labrador tea	5	S2	0.1	
GRWP.47	12	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5	S2	1	
GRWP.47	13	Ribes lacustre (Pers.) Poir.	prickly currant	5	S2	0.1	
GRWP.47	14	Rosa acicularis Lindl.	prickly rose	5	S2	0.1	
GRWP.47	15	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5	S2	10	
GRWP.47	16	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5	S2	5	
GRWP.47	4	Betula neoalaskana Sarg.	Alaska paper birch	2	T2	5	13 cm
GRWP.47	3	Picea glauca (Moench) Voss	white spruce	2	T2	30	20 cm
GRWP.47	6	Populus tremuloides Michx.	quaking aspen	2	T2	15	16 cm
GRWP.47	7	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3	T3	15	
GRWP.48	42	Bryoria Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
GRWP.48	46	Cetraria Ach.	cetraria lichen	10	E	0.1	
GRWP.48	43	Evernia mesomorpha Nyl.	ring lichen	10	E	0.1	
GRWP.48	44	Hypogymnia physodes (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.48	45	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.48	13	Achillea millefolium L.	common yarrow	7	H	0.1	
GRWP.48	14	Actaea rubra (Ait.) Willd.	red baneberry	7	H	2	
GRWP.48	15	Aralia nudicaulis L.	wild sarsaparilla	7	H	20	



Plot Code	Plc	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
RWP.48	16	Aster ciliolatus Lindl.	Lindley's aster	7 H		3	
RWP.48	52	Aster conspicuus Lindl.	showy aster	7 H		0.1	
RWP.48	17	Athyrium filix-femina (L.) Roth	common ladyfern	7 H		0.1	
RWP.48	18	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H		45	
RWP.48	19	Cornus canadensis L.	bunchberry dogwood	7 H		10	
RWP.48	49	Delphinium glaucum S. Wats.	Sierra larkspur	7 H		0.1	
RWP.48	21	Epilobium angustifolium L.	fireweed	7 H		1	
RWP.48	22	Equisetum sylvaticum L.	woodland horsetail	7 H		0.1	
RWP.48	23	Galium boreale L.	northern bedstraw	7 H		0.1	
RWP.48	29	Galium triflorum Michx.	fragrant bedstraw	7 H		0.1	
RWP.48	51	Gentiana richardsonii Porsild	= Gentianopsis detonsa ssp. detonsa	7 H		0.1	
RWP.48	24	Gymnocarpium dryopteris (L.) Newman	western oakfern	7 H		2	
RWP.48	34	Heracleum lanatum Michx.	= Heracleum maximum	7 H		2	
RWP.48	25	Hieracium umbellatum L.	narrowleaf hawkweed	7 H		1	
RWP.48	26	Lathyrus ochroleucus Hook.	cream peavine	7 H		2	
RWP.48	27	Linnaea borealis L.	twinlineer	7 H		0.1	
RWP.48	28	Lycopodium annotinum L.	stiff clubmoss	7 H		0.1	
RWP.48	37	Mertensia paniculata (Ait.) G. Don	tall bluebells	7 H		1	
RWP.48	30	Mitella nuda L.	naked miterwort	7 H		0.1	
RWP.48	31	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7 H		2	
RWP.48	32	Pyrola elliptica Nutt.	waxflower shinleaf	7 H		0.1	
RWP.48	33	Rubus pubescens Raf.	dwarf red blackberry	7 H		10	
RWP.48	50	Schizachne purpurascens (Torr.) Swallen	false melic	7 H		1	
RWP.48	38	Solidago canadensis L.	Canada goldenrod	7 H		0.1	
RWP.48	35	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7 H		2	
RWP.48	36	Thalictrum venulosum Trel.	veiny meadowrue	7 H		0.1	
RWP.48	39	Trientalis borealis Raf.	American starflower	7 H		0.1	
RWP.48	48	Vicia americana Muhl. ex Willd.	American vetch	7 H		0.1	
RWP.48	40	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		0.1	
RWP.48	9	Ribes lacustre (Pers.) Poir.	prickly currant	5 S2		0.1	
RWP.48	10	Rosa acicularis Lindl.	prickly rose	5 S2		2	
RWP.48	11	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2		0.1	
RWP.48	12	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5 S2		3	
RWP.48	2	Picea glauca (Moench) Voss	white spruce	2 T2		20 25 cm	
RWP.48	3	Populus tremuloides Michx.	quaking aspen	2 T2		20 15 cm	
RWP.48	4	Betula neolaskana Sarg.	Alaska paper birch	3 T3		0.1	
RWP.48	47	Populus tremuloides Michx.	quaking aspen	3 T3		0.1	
RWP.49	13	Achillea millefolium L.	common yarrow	7 H		1	
RWP.49	14	Actaea rubra (Ait.) Willd.	red baneberry	7 H		0.1	
RWP.49	15	Aralia nudicaulis L.	wild sarsaparilla	7 H		2	
RWP.49	16	Aster ciliolatus Lindl.	Lindley's aster	7 H		1	
RWP.49	17	Athyrium filix-femina (L.) Roth	common ladyfern	7 H		5	
RWP.49	18	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H		60	
RWP.49	20	Epilobium angustifolium L.	fireweed	7 H		0.1	
RWP.49	21	Equisetum sylvaticum L.	woodland horsetail	7 H		2	
RWP.49	24	Fragaria virginiana Duchesne	Virginia strawberry	7 H		1	
RWP.49	22	Galium boreale L.	northern bedstraw	7 H		0.1	
RWP.49	19	Geranium richardsonii Fisch. & Trautv.	Richardson's geranium	7 H		2	
RWP.49	23	Gymnocarpium dryopteris (L.) Newman	western oakfern	7 H		0.1	
RWP.49	47	Heracleum lanatum Michx.	= Heracleum maximum	7 H		2	
RWP.49	49	Hieracium umbellatum L.	narrowleaf hawkweed	7 H		0.1	
RWP.49	25	Lathyrus ochroleucus Hook.	cream peavine	7 H		2	
RWP.49	28	Maianthemum canadense Desf.	Canada beadruby	7 H		0.1	
RWP.49	30	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7 H		1	
RWP.49	32	Rubus pubescens Raf.	dwarf red blackberry	7 H		5	
RWP.49	48	Solidago canadensis L.	Canada goldenrod	7 H		0.1	
RWP.49	35	Thalictrum venulosum Trel.	veiny meadowrue	7 H		5	
RWP.49	36	Vicia americana Muhl. ex Willd.	American vetch	7 H		0.1	
RWP.49	37	Viola palustris L.	marsh violet	7 H		0.1	
RWP.49	10	Rosa acicularis Lindl.	prickly rose	5 S2		0.1	

Plot Code	Plot	Scientific Name	Common Name	Stratum	Stratum	Real C	DBH
GRWP.49	46	Rubus idaeus L.	American red raspberry	5	S2	15	
GRWP.49	11	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5	S2	0.1	
GRWP.49	12	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5	S2	0.1	
GRWP.49	50	Populus tremuloides Michx.	quaking aspen	3	T3	0.1	
GRWP.5	1	Carex aquatilis Wahlenb.	water sedge	7	H	15	
GRWP.5	7	Carex pauciflora Lightf.	star sedge	7	H	5	
GRWP.5	11	Eriophorum vaginatum L.	tussock cottongrass	7	H	1	
GRWP.5	10	Rubus chamaemorus L.	cloudberry	7	H	1	
GRWP.5	6	Smilacina trifolia (L.) Desf.	= Maianthemum trifolium	7	H	5	
GRWP.5	8	Vaccinium oxycoccos L.	small cranberry	7	H	1	
GRWP.5	16	Aulacomnium palustre (Hedw.) Schwaegr.	aulacomnium moss	8	N	0	
GRWP.5	14	Sphagnum fuscum (Schimp.) Klinggr.	sphagnum	8	N	50	
GRWP.5	15	Sphagnum L.	sphagnum	8	N	10	
GRWP.5	2	Ledum groenlandicum Oeder	bog Labrador tea	5	S2	2	
GRWP.5	5	Andromeda polifolia L.	bog rosemary	4	S3	10	
GRWP.5	9	Chamaedaphne calyculata (L.) Moench	leatherleaf	6	S3	2	
GRWP.5	4	Kalmia polifolia Wangenh.	bog laurel	6	S3	2	
GRWP.5	3	Picea mariana (P. Mill.) B.S.P.	black spruce	3	T3	0.1	
GRWP.50	5	Achillea millefolium L.	common yarrow	7	H	0.1	
GRWP.50	6	Actaea rubra (Ait.) Willd.	red baneberry	7	H	2	
GRWP.50	7	Aralia nudicaulis L.	wild sarsaparilla	7	H	30	
GRWP.50	8	Aster ciliolatus Lindl.	Lindley's aster	7	H	1	
GRWP.50	10	Aster conspicuus Lindl.	showy aster	7	H	25	
GRWP.50	9	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	5	
GRWP.50	11	Cornus canadensis L.	bunchberry dogwood	7	H	5	
GRWP.50	12	Equisetum sylvaticum L.	woodland horsetail	7	H	0.1	
GRWP.50	14	Galium boreale L.	northern bedstraw	7	H	1	
GRWP.50	13	Galium triflorum Michx.	fragrant bedstraw	7	H	0.1	
GRWP.50	15	Geranium richardsonii Fisch. & Trautv.	Richardson's geranium	7	H	1	
GRWP.50	16	Gymnocarpium dryopteris (L.) Newman	western oakfern	7	H	3	
GRWP.50	17	Heracleum lanatum Michx.	= Heracleum maximum	7	H	2	
GRWP.50	18	Lathyrus ochroleucus Hook.	cream peavine	7	H	5	
GRWP.50	32	Linnaea borealis L.	twinline	7	H	1	
GRWP.50	19	Maianthemum canadense Desf.	Canada beadruby	7	H	1	
GRWP.50	26	Mertensia paniculata (Ait.) G. Don	tall bluebells	7	H	5	
GRWP.50	33	Mitella nuda L.	naked miterwort	7	H	0.1	
GRWP.50	20	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7	H	1	
GRWP.50	24	Pyrola elliptica Nutt.	waxflower shinleaf	7	H	1	
GRWP.50	21	Rubus pubescens Raf.	dwarf red blackberry	7	H	5	
GRWP.50	22	Thalictrum venulosum Trel.	veiny meadowrue	7	H	5	
GRWP.50	23	Trientalis borealis Raf.	American starflower	7	H	0.1	
GRWP.50	25	Viola palustris L.	marsh violet	7	H	0.1	
GRWP.50	2	Lonicera involucrata Banks ex Spreng.	twiberry honeysuckle	5	S2	5	
GRWP.50	31	Ribes hirtellum Michx.	hairystem gooseberry	5	S2	0.1	
GRWP.50	1	Rosa acicularis Lindl.	prickly rose	5	S2	1	
GRWP.50	3	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5	S2	0.1	
GRWP.50	4	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5	S2	5	
GRWP.50	28	Picea glauca (Moench) Voss	white spruce	2	T2	20	28 cm
GRWP.50	29	Populus tremuloides Michx.	quaking aspen		T2	40	16 cm
GRWP.50	30	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3	T3	2	
GRWP.51	42	Bryoria Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
GRWP.51	43	Cetraria Ach.	cetraria lichen	10	E	0.1	
GRWP.51	44	Evernia mesomorpha Nyl.	ring lichen	10	E	0.1	
GRWP.51	45	Hypogymnia physodes (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.51	46	Physcia (Schreber) Michaux	rosette lichen	10	E	0.1	
GRWP.51	47	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.51	12	Aster ciliolatus Lindl.	Lindley's aster	7	H	0.1	
GRWP.51	16	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H	10	
GRWP.51	15	Cornus canadensis L.	bunchberry dogwood	7	H	20	
GRWP.51	17	Epilobium angustifolium L.	fireweed	7	H	0.1	



Plot Code	PIC	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
WP.51	18	Hieracium umbellatum L.	narrowleaf hawkweed	7 H		1	
WP.51	23	Linnaea borealis L.	twinflower	7 H		3	
WP.51	25	Lycopodium annotinum L.	stiff clubmoss	7 H		1	
WP.51	26	Lycopodium complanatum L.	groundcedar	7 H		0.1	
WP.51	24	Maianthemum canadense Desf.	Canada beadruby	7 H		1	
WP.51	29	Rubus pubescens Raf.	dwarf red blackberry	7 H		0.1	
WP.51	31	Trientalis borealis Raf.	American starflower	7 H		0.1	
WP.51	32	Viola palustris L.	marsh violet	7 H		0.1	
WP.51	41	Cladina mitis (Sandst.) Hustich	reindeer lichen	8 N		5	
WP.51	37	Dicranum fuscescens Turn.	dicranum moss	8 N		0.1	
WP.51	38	Hylocomium splendens (Hedw.) Schimp. in B.	splendid feather moss	8 N		20	
WP.51	39	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		5	
WP.51	40	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8 N		5	
WP.51	34	Amelanchier alnifolia (Nutt.) Nutt. ex M. Roem	Saskatoon serviceberry	4 S1		0.1	
WP.51	35	Sorbus scopulina Greene	Greene mountainash	4 S1		0.1	
NP.51	4	Lonicera involucrata Banks ex Spreng.	twinberry honeysuckle	5 S2		0.1	
NP.51	6	Rosa acicularis Lindl.	prickly rose	5 S2		1	
NP.51	36	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5 S2		0.1	
NP.51	7	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2		30	
NP.51	8	Viburnum edule (Michx.) Raf.	mooseberry viburnum	5 S2		0.1	
NP.51	27	Vaccinium vitis-idaea L.	lingonberry	6 S3		2	
NP.51	3	Betula neoalaskana Sarg.	Alaska paper birch	2 T2		5 11 cm	
NP.51	2	Picea glauca (Moench) Voss	white spruce	2 T2		25 18 cm	
NP.51	1	Pinus contorta Dougl. ex Loud.	lodgepole pine	2 T2		35 15 cm	
NP.51	33	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3 T3		20	
NP.51	49	Betula neoalaskana Sarg.	Alaska paper birch	3 T3		0.1	
NP.52	31	Cetraria Ach.	cetraria lichen	10 E		0.1	
NP.52	40	Cetraria pinastri (Scop.) Gray	= Vulpicida pinastri	10 E		0.1	
NP.52	32	Evernia mesomorpha Nyl.	ring lichen	10 E		0.1	
NP.52	33	Hypogymnia physodes (L.) Nyl.	tube lichen	10 E		0.1	
NP.52	34	Physcia (Schreber) Michaux	rosette lichen	10 E		0.1	
NP.52	35	Usnea Dill. ex Adans.	beard lichen	10 E		0.1	
NP.52	13	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7 H		5	
NP.52	12	Cornus canadensis L.	bunchberry dogwood	7 H		25	
NP.52	16	Linnaea borealis L.	twinflower	7 H		5	
NP.52	18	Lycopodium annotinum L.	stiff clubmoss	7 H		5	
NP.52	19	Lycopodium complanatum L.	groundcedar	7 H		2	
NP.52	17	Maianthemum canadense Desf.	Canada beadruby	7 H		1	
NP.52	21	Orthilia secunda (L.) House	sidebells wintergreen	7 H		0.1	
NP.52	23	Schizachne purpurascens (Torr.) Swallen	false melic	7 H		1	
NP.52	22	Trientalis borealis Raf.	American starflower	7 H		0.1	
NP.52	29	Cladina mitis (Sandst.) Hustich	reindeer lichen	8 N		0.1	
NP.52	25	Dicranum fuscescens Turn.	dicranum moss	8 N		0.1	
NP.52	26	Hylocomium splendens (Hedw.) Schimp. in B.	splendid feather moss	8 N		20	
NP.52	27	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8 N		3	
NP.52	28	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8 N		2	
NP.52	5	Prunus pensylvanica L. f.	pin cherry	4 S1		0.1	
NP.52	6	Sorbus scopulina Greene	Greene mountainash	4 S1		2	
NP.52	8	Rosa acicularis Lindl.	prickly rose	5 S2		0.1	
NP.52	24	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry	5 S2		5	
NP.52	9	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5 S2		35	
NP.52	20	Vaccinium vitis-idaea L.	lingonberry	6 S3		2	
NP.52	1	Betula neoalaskana Sarg.	Alaska paper birch	2 T2		5 10 cm	
NP.52	2	Picea glauca (Moench) Voss	white spruce	2 T2		10 16 cm	
NP.52	3	Pinus contorta Dougl. ex Loud.	lodgepole pine	2 T2		45 15 cm	
NP.52	36	Populus tremuloides Michx.	quaking aspen	2 T2		5 10 cm	
NP.52	4	Abies lasiocarpa (Hook.) Nutt.	subalpine fir	3 T3		25	
NP.52	37	Betula neoalaskana Sarg.	Alaska paper birch	3 T3		2	
NP.52	38	Picea glauca (Moench) Voss	white spruce	3 T3		0.1	
NP.52	39	Populus tremuloides Michx.	quaking aspen	3 T3		0.1	

Plot Code	Plc	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
GRWP.6	5	Bryoria Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
GRWP.6	4	Hypogymnia physodes (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.6	3	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.6	1	Carex aquatilis Wahlenb.	water sedge	7	H	2	
GRWP.6	7	Carex pauciflora Lightf.	star sedge	7	H	25	
GRWP.6	11	Eriophorum vaginatum L.	tussock cottongrass	7	H	0.1	
GRWP.6	10	Rubus chamaemorus L.	cloudberry	7	H	5	
GRWP.6	6	Smilacina trifolia (L.) Desf.	= Maianthemum trifolium	7	H	5	
GRWP.6	8	Vaccinium oxycoccos L.	small cranberry	7	H	1	
GRWP.6	16	Aulacomnium palustre (Hedw.) Schwaegr.	aulacomnium moss	8	N	0	
GRWP.6	14	Sphagnum fuscum (Schimp.) Klinggr.	sphagnum	8	N	50	
GRWP.6	15	Sphagnum L.	sphagnum	8	N	10	
GRWP.6	2	Betula pumila L.	swamp birch	5	S2	0.1	
GRWP.6	2	Ledum groenlandicum Oeder	bog Labrador tea	5	S2	10	
GRWP.6	5	Andromeda polifolia L.	bog rosemary	4	S3	5	
GRWP.6	9	Chamaedaphne calyculata (L.) Moench	leatherleaf	6	S3	25	
GRWP.6	4	Kalmia polifolia Wangenh.	bog laurel	6	S3	2	
GRWP.6	1	Picea mariana (P. Mill.) B.S.P.	black spruce	2	T2	15	5 cm
GRWP.6	3	Picea mariana (P. Mill.) B.S.P.	black spruce	3	T3	0.1	
GRWP.6	6	Pinus contorta Dougl. ex Loud.	lodgepole pine	3	T3	0.1	
GRWP.7	5	Bryoria Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
GRWP.7	6	Hypogymnia physodes (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.7	4	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.7	13	Carex deweyana Schwein.	Dewey sedge	7	H	0.1	
GRWP.7	7	Carex pauciflora Lightf.	star sedge	7	H	2	
GRWP.7	11	Eriophorum vaginatum L.	tussock cottongrass	7	H	1	
GRWP.7	2	Gaultheria hispidula (L.) Muhl. ex Bigelow	creeping snowberry	7	H	5	
GRWP.7	3	Moneses uniflora (L.) Gray	single delight	7	H	0.1	
GRWP.7	10	Rubus chamaemorus L.	cloudberry	7	H	40	
GRWP.7	6	Smilacina trifolia (L.) Desf.	= Maianthemum trifolium	7	H	5	
GRWP.7	17	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8	N	15	
GRWP.7	18	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8	N	5	
GRWP.7	15	Sphagnum L.	sphagnum	8	N	30	
GRWP.7	2	Ledum groenlandicum Oeder	bog Labrador tea	5	S2	25	
GRWP.7	5	Andromeda polifolia L.	bog rosemary	4	S3	10	
GRWP.7	9	Chamaedaphne calyculata (L.) Moench	leatherleaf	6	S3	2	
GRWP.7	12	Vaccinium vitis-idaea L.	lingonberry	6	S3	2	
GRWP.7	1	Picea mariana (P. Mill.) B.S.P.	black spruce	2	T2	50	12 cm
GRWP.7	3	Picea mariana (P. Mill.) B.S.P.	black spruce	3	T3	0.1	
GRWP.8	19	Hypogymnia physodes (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.8	18	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	
GRWP.8	12	Aralia nudicaulis L.	wild sarsaparilla	7	H	2	
GRWP.8	17	Athyrium filix-femina (L.) Roth	common ladyfern	7	H	1	
GRWP.8	10	Calamagrostis canadensis (Michx.) Beauv.	bluejoint		H	60	
GRWP.8	9	Epilobium angustifolium L.	fireweed	7	H	3	
GRWP.8	15	Equisetum sylvaticum L.	woodland horsetail	7	H	2	
GRWP.8	14	Galium triflorum Michx.	fragrant bedstraw	7	H	0.1	
GRWP.8	16	Gymnocarpium robertianum (Hoffmann) New	scented oakfern	7	H	1	
GRWP.8	11	Heracleum lanatum Michx.	= Heracleum maximum	7	H	2	
GRWP.8	13	Petasites palmatus (Ait.) Gray	= Petasites frigidus var. palmatus	7	H	0.1	
GRWP.8	5	Alnus tenuifolia Nutt.	= Alnus incana ssp. tenuifolia	4	S1	20	
GRWP.8	8	Ribes hirtellum Michx.	hairy stem gooseberry	5	S2	0.1	
GRWP.8	7	Rosa woodsii Lindl.	Woods' rose		S2	0.1	
GRWP.8	6	Rubus idaeus L.	American red raspberry	5	S2	10	
GRWP.8	3	Betula neoalaskana Sarg.	Alaska paper birch		T2	5	13 cm
GRWP.8	2	Pinus contorta Dougl. ex Loud.	lodgepole pine		T2	10	30 cm
GRWP.8	1	Populus balsamifera L.	balsam poplar	2	T2	30	40 cm
GRWP.9	25	Bryoria Brodo & D. Hawksw.	horsehair lichen	10	E	0.1	
GRWP.9	24	Hypogymnia physodes (L.) Nyl.	tube lichen	10	E	0.1	
GRWP.9	23	Usnea Dill. ex Adans.	beard lichen	10	E	0.1	

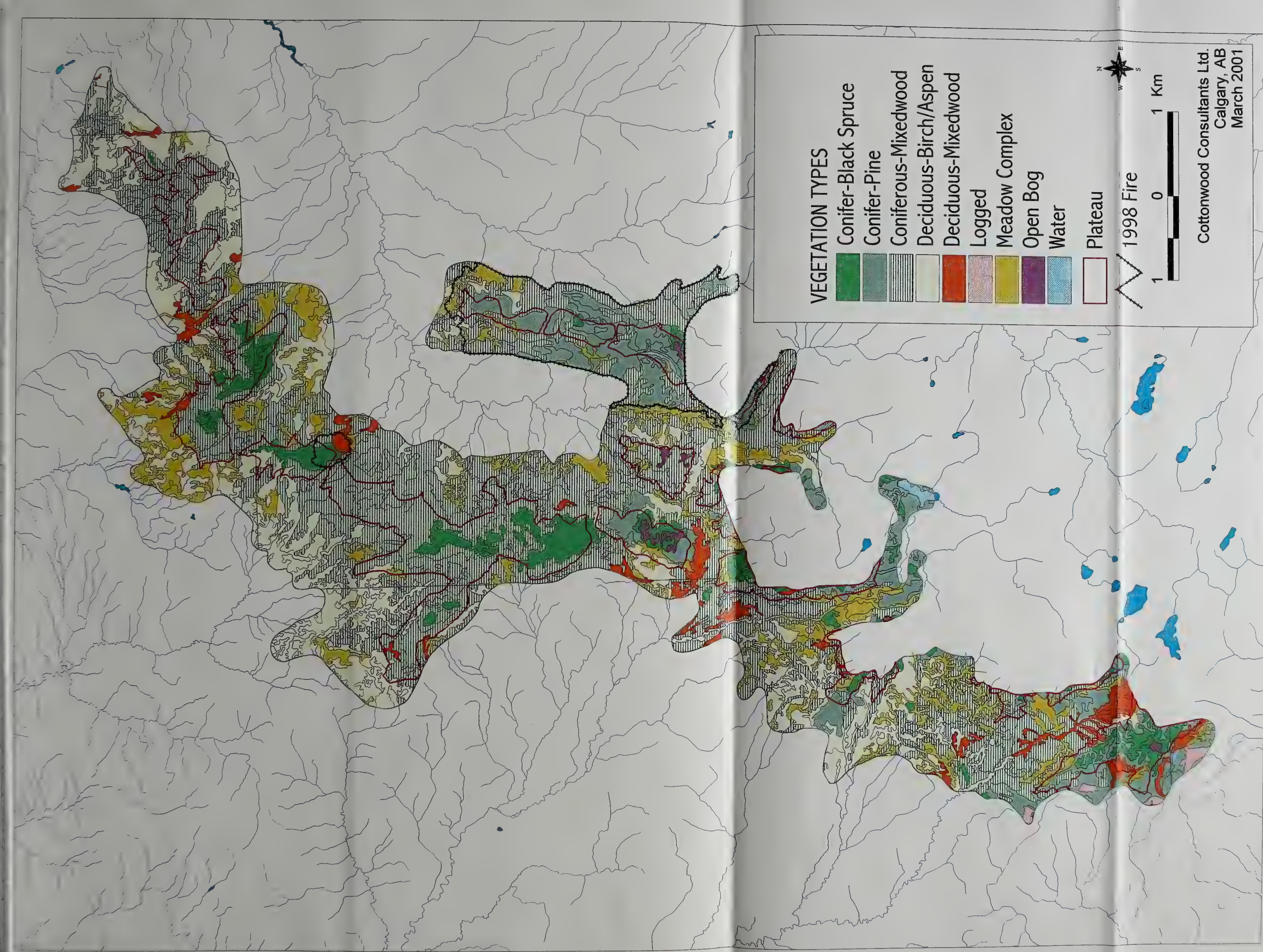


Plot Code	Pld	Scientific Name	Common Name	Stratum S	Stratum	Real C	DBH
WVP.9	20	Athyrium filix-femina (L.) Roth	common ladyfern	7	H		0.1
WVP.9	9	Calamagrostis canadensis (Michx.) Beauv.	bluejoint	7	H		5
WVP.9	13	Carex deweyana Schwein.	Dewey sedge	7	H		0.1
WVP.9	19	Cinna latifolia (Trev. ex Goepp.) Griseb.	drooping woodreed	7	H		0.1
WVP.9	10	Cornus canadensis L.	bunchberry dogwood		H		10
WVP.9	17	Dryopteris assimilis S. Walker	= Dryopteris expansa	7	H		0.1
WVP.9	18	Epilobium angustifolium L.	fireweed	7	H		0.1
WVP.9	16	Lycopodium annotinum L.	stiff clubmoss	7	H		3
WVP.9	15	Maianthemum canadense Desf.	Canada beadruby	7	H		2
WVP.9	12	Rubus pedatus Sm.	strawberryleaf raspberry	7	H		10
WVP.9	14	Streptopus amplexifolius (L.) DC.	claspleaf twistedstalk	7	H		1
WVP.9	21	Pleurozium schreberi (Brid.) Mitt.	Schreber's big red stem moss	8	N		15
WVP.9	22	Ptilium crista-castrensis (Hedw.) De Not.	knights plume moss	8	N		5
WVP.9	5	Sorbus scopulina Greene	Greene mountainash	4	S1		5
WVP.9	8	Ledum groenlandicum Oeder	bog Labrador tea		S2		20
WVP.9	7	Vaccinium membranaceum Dougl. ex Torr.	blue huckleberry		S2		5
WVP.9	6	Vaccinium myrtilloides Michx.	velvetleaf huckleberry	5	S2		55
WVP.9	11	Vaccinium vitis-idaea L.	lingonberry	6	S3		5
WVP.9	2	Picea mariana (P. Mill.) B.S.P.	black spruce		T2		1
WVP.9	1	Pinus contorta Dougl. ex Loud.	lodgepole pine	2	T2		50 25 cm
WVP.9	4	Abies lasiocarpa (Hook.) Nutt.	subalpine fir		T3		1
WVP.9	3	Betula neoalaskana Sarg.	Alaska paper birch	3	T3		0.1

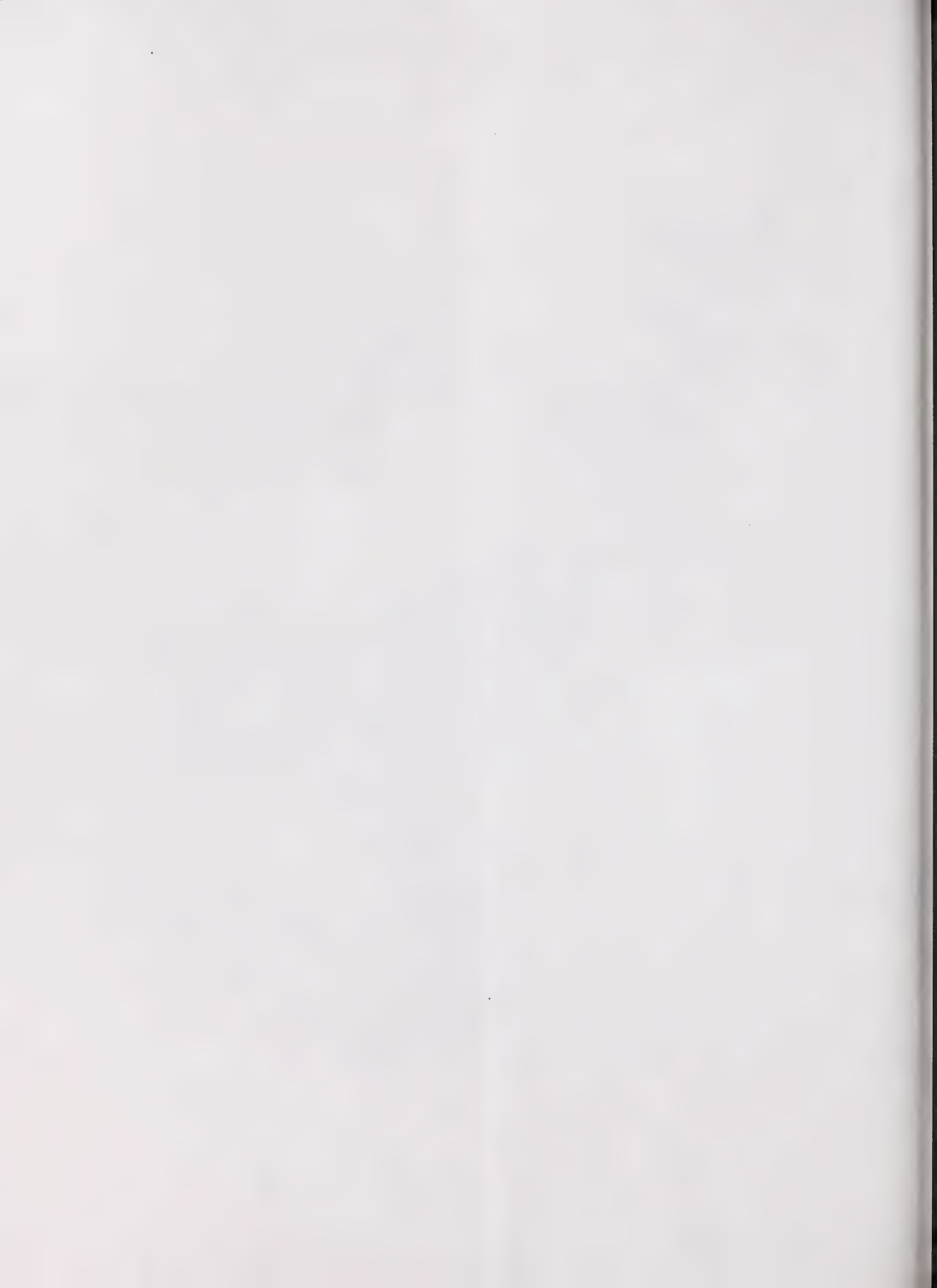




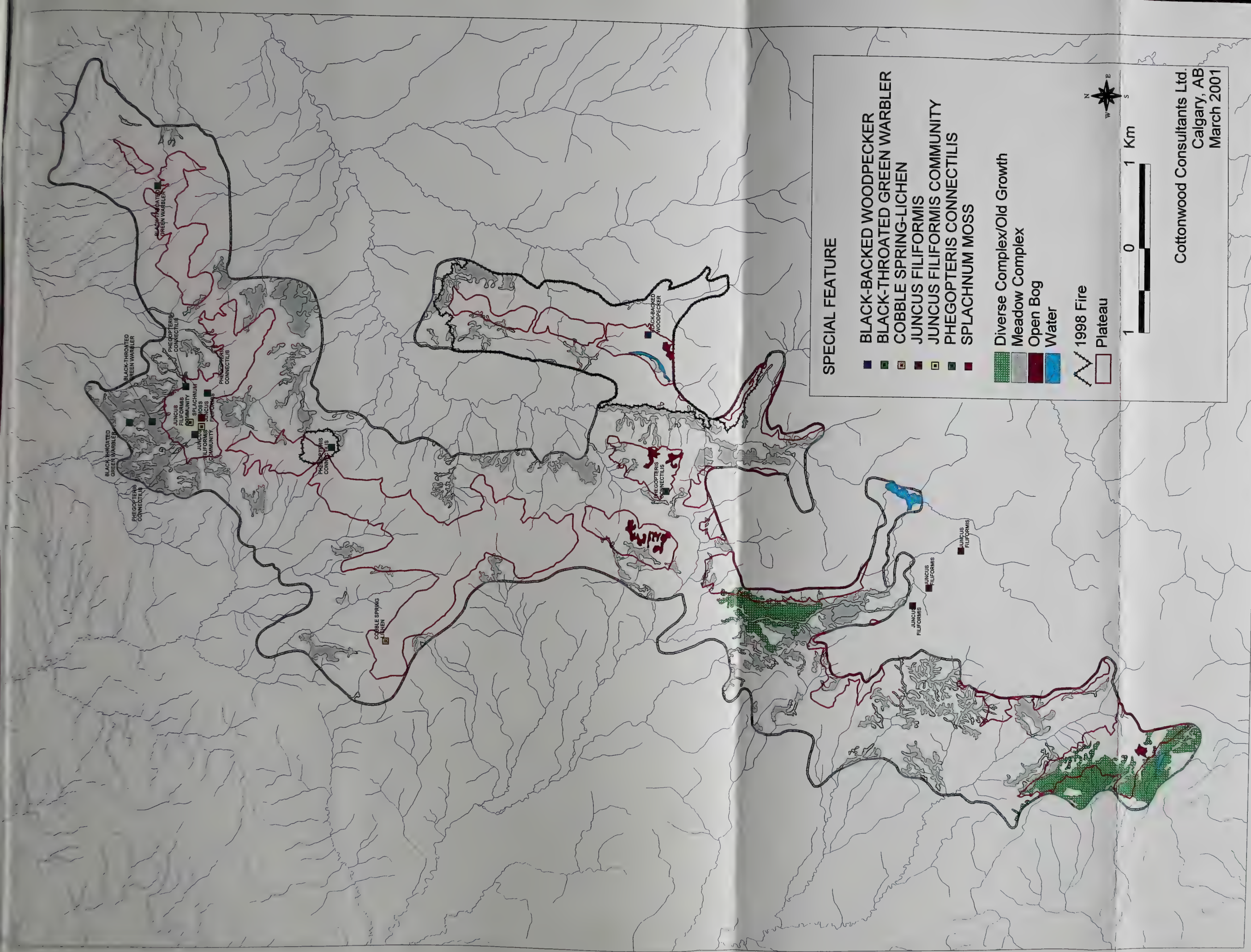
# MAP 1. VEGETATION TYPES GRIZZLY RIDGE WILDLAND PARK







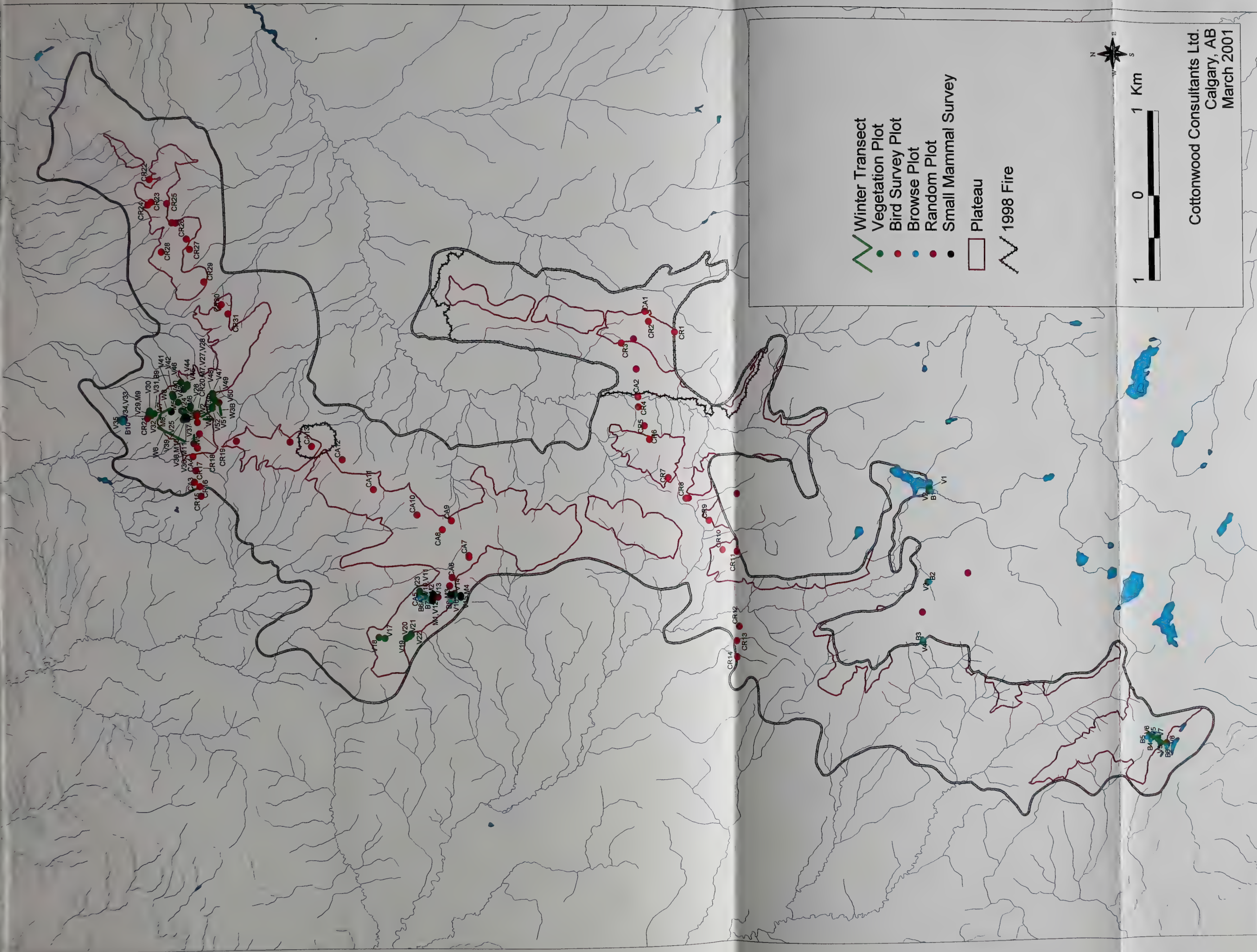




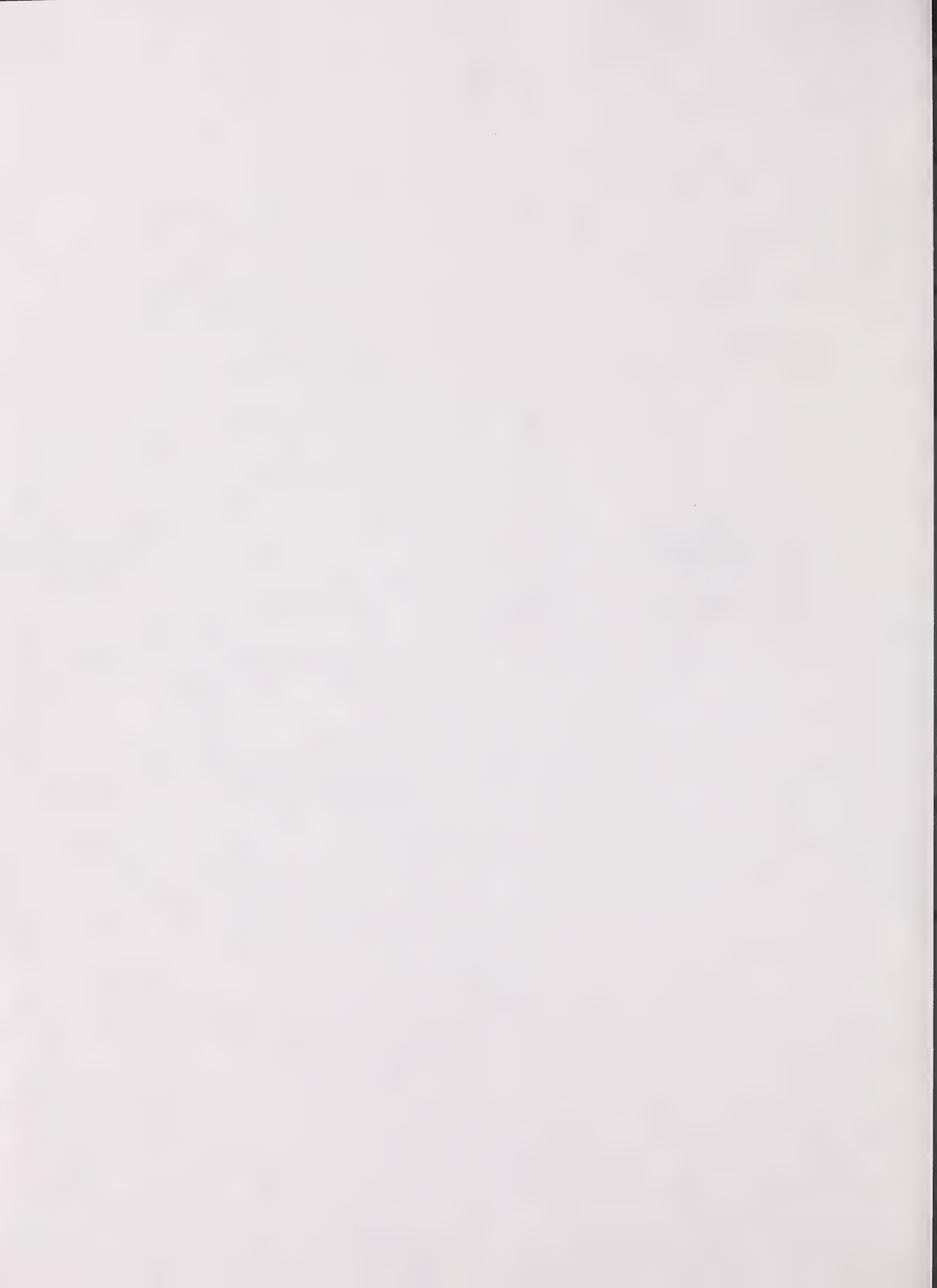
MAP 2. SPECIAL FEATURES  
GRIZZLY RIDGE WILDLAND PARK



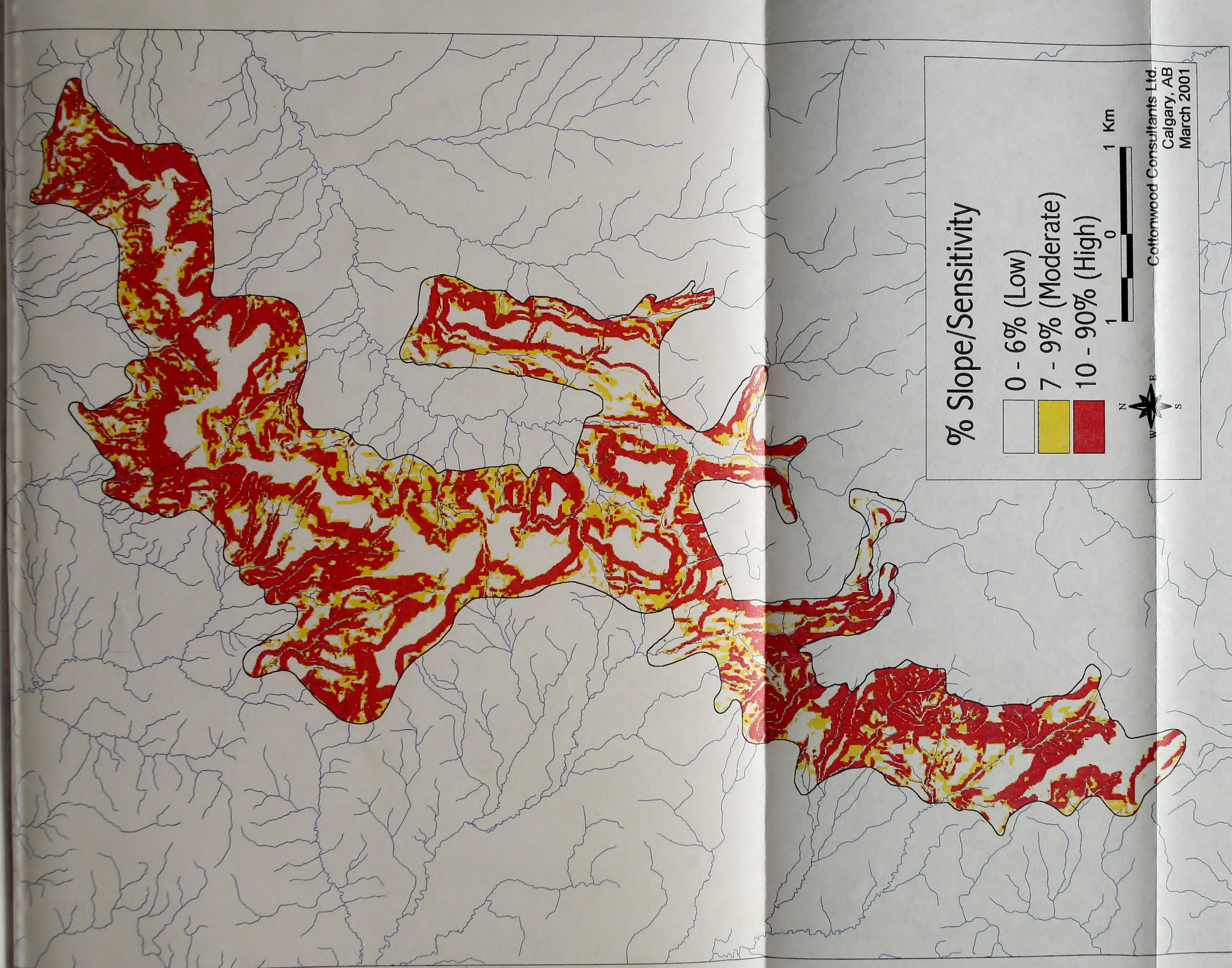




MAP 3. PLOT/TRANSECT LOCATIONS  
 GRIZZLY RIDGE WILDLAND PARK







**MAP 4. SLOPE SENSITIVITY ANALYSIS  
GRIZZLY RIDGE WILDLAND PARK**









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